

CFD-V20

SERVICE MANUAL

US Model
Canadian Model



Model Name Using Similar Mechanism	CD Section Tape Section	NEW NEW
Optical Pick-up Type		KSM-213CAM/C1NP
Tape Transport Mechanism Type		MF-V10-117

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

With 2.8-ohm loads, both channels driven from 150 - 10,000 Hz; rated 2 W per channel-minimum RMS power, with no more than 10 % total harmonic distortion in AC operation.

Other Specifications

CD player section

System

Compact disc digital audio system

Laser diode properties

Material GaAlAs

Wave length: 780 nm

Emission duration: Continuous

Laser output: Less than 44.6 μ W

(This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.)

Spindle speed

200 r/min (rpm) to 500 r/min (rpm) (CLV)

Number of channels

2

Frequency response

20 - 20,000 Hz $\pm 1/-2$ dB

Wow and flutter

Below measurable limit

Radio section

Frequency range

FM 87.6 - 108 MHz

AM 530 - 1,710 kHz

Aerials

FM: Telescopic aerial

AM: Built-in ferrite bar aerial

Cassette-corder section

Recording system

4-track 2 channel stereo

Fast winding time

Approx. 120 s (sec.) with Sony cassette C-60

Frequency response

TYPE I (normal): 70 - 10,000 Hz

General

Speaker

Full range: 10 cm dia., 2.8ohms, cone type (2)

Outputs

Headphones jack (stereo minijack)

For 16 - 64 ohms impedance headphones

Power output (excluding US model)

2.5 W + 2.5 W (at 2.8 ohms, 10 % harmonic distortion)

Power requirements

For CD radio cassette-corder

120 V AC, 60 Hz

9 V DC, 6 size D (R20) batteries

Power consumption

AC 20 W

Battery life

For CD radio cassette-corder.

FM recording

Sony R20P approx. 13.5 h

Sony alkaline LR20 approx. 20 h

Tape playback

Sony R20P approx. 7.5 h

Sony alkaline LR20 approx. 15 h

CD playback

Sony R20P approx. 2.5 h

Sony alkaline LR20 approx. 7 h

Dimensions

Approx. 425 x 160 x 246 mm (w/h/d)
(16 1/4 x 6 1/8 x 9 1/2 inches) (incl. projecting parts)

Mass

Approx. 4.0 kg (8 lb 13 oz) (incl. batteries)

Supplied accessory

AC power cord (1)

Design and specifications are subject to change without notice.

CD RADIO CASSETTE -CORDER

SONY®



992313511

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CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK $\triangle$ OR DOTTED LINE WITH MARK $\triangle$ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE $\triangle$ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1 SERVICING NOTES

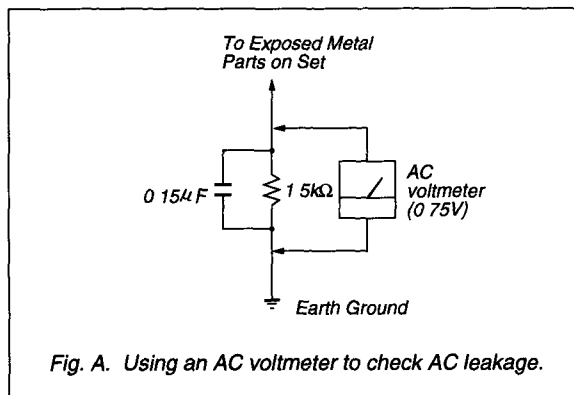
SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer :
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)



NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.

The flexible board is easily damaged and should be handled with care.

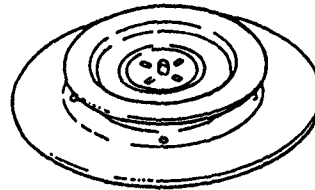
NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe more than 30 cm away from the objective lens.

CHUCK PLATE JIG ON REPAIRING

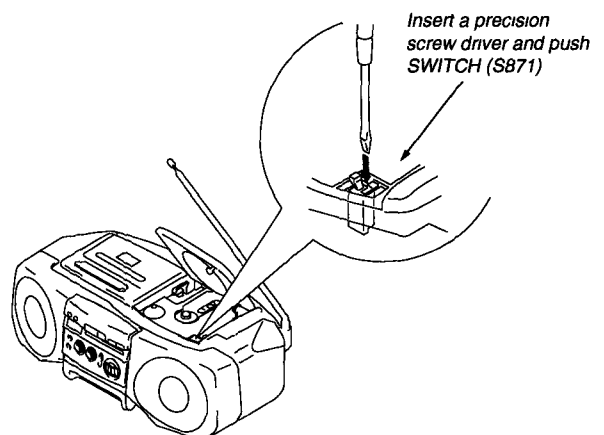
On repairing CD section, playing a disc without the CD lid, use Chuck Plate Jig.

- Code number of Chuck Plate Jig : X-4918-255-1



LASER DIODE AND FOCUS SEARCH OPERATION CHECK

1. Press CD open knob.
2. Open the lid for CD.
3. Push on SWITCH (S871) as following figure.
4. Confirm the laser diode emission while observing the objecting lens. When there is no emission, Auto Power Control circuit or Optical Pick-up is broken.
Objective lens moves up and down once for the focus search.

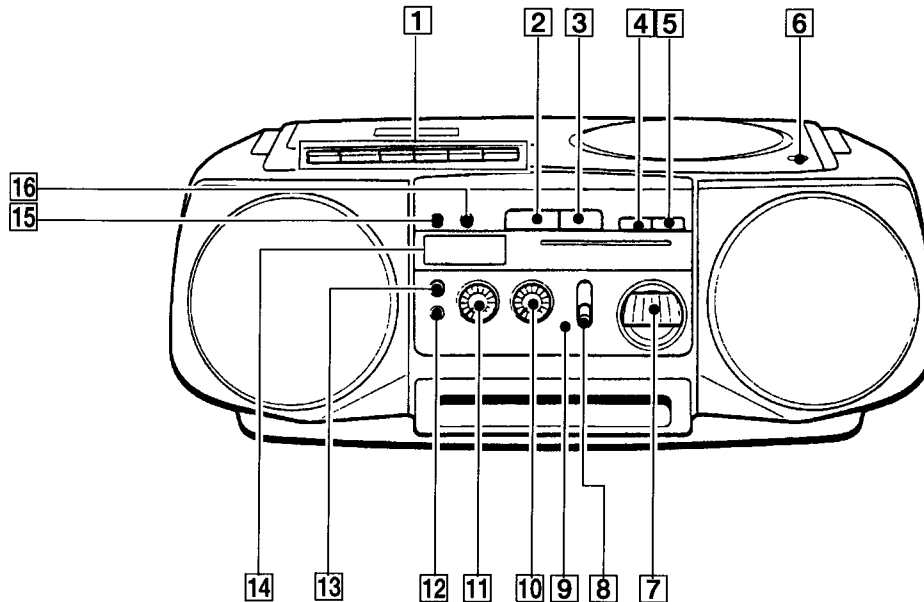


SECTION 2 GENERAL

This section is extracted from instruction manual.

LOCATION AND FUNCTION OF CONTROLS

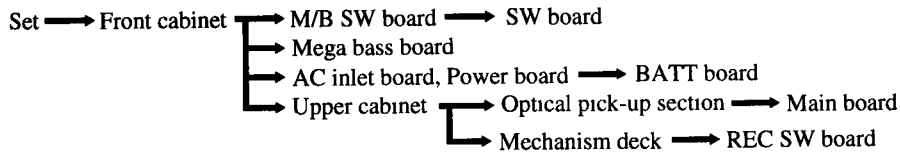
Main unit



- | | |
|---------------------------------|---------------------------------|
| 1 Tape operation buttons | 9 OPR / BATT indicator |
| 2 ► button | 10 TONE knob |
| 3 ■ button | 11 VOL knob |
| 4 ◀◀ button | 12 ☎ Phones jack |
| 5 ▶▶ button | 13 MEGA BASS switch |
| 6 OPEN / CLOSE button | 14 Information display |
| 7 TUNE knob | 15 PLAY MODE button |
| 8 FUNCTION switch | 16 DISPLAY, ENTER button |

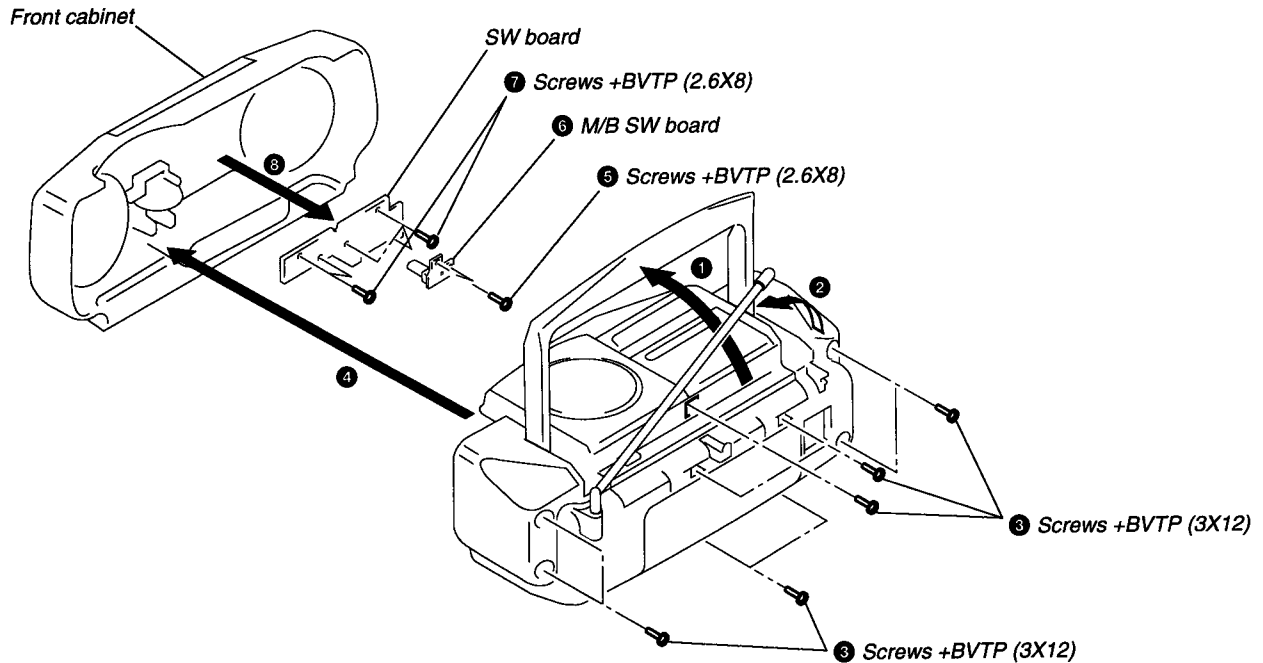
SECTION 3 DISASSEMBLY

- The equipment can be removed using the following procedure. ,

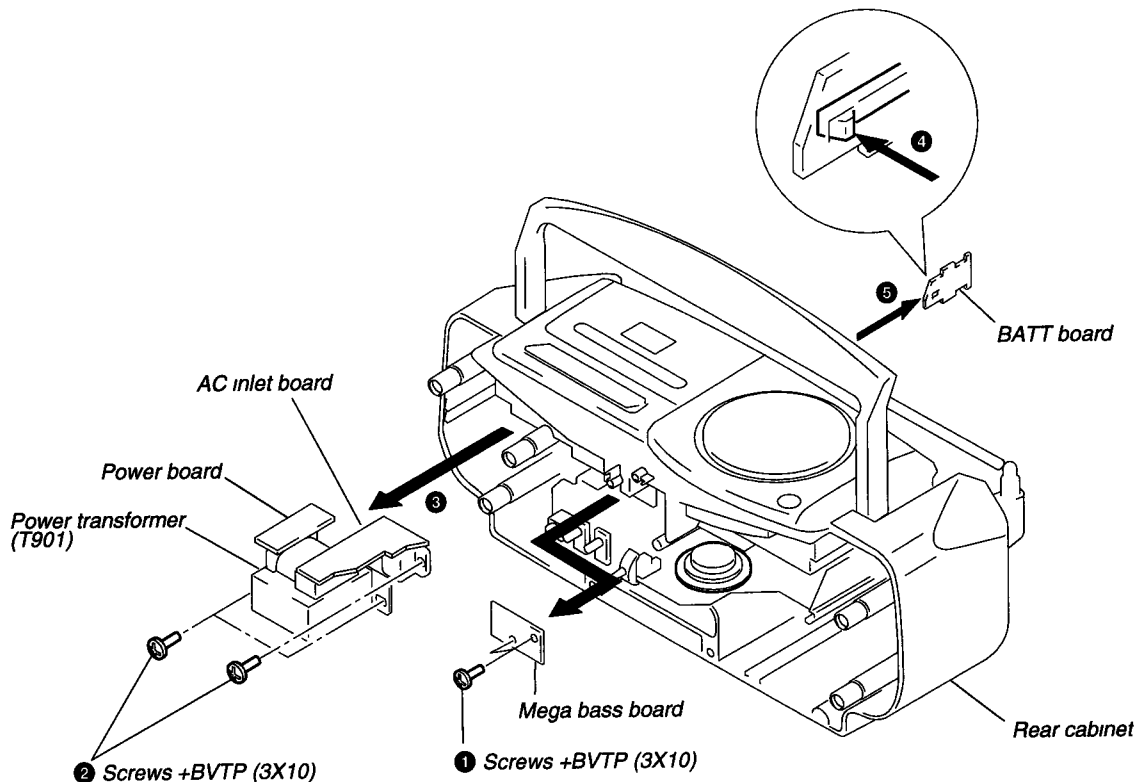


Note : Follow the disassembly procedure in the numerical order given.

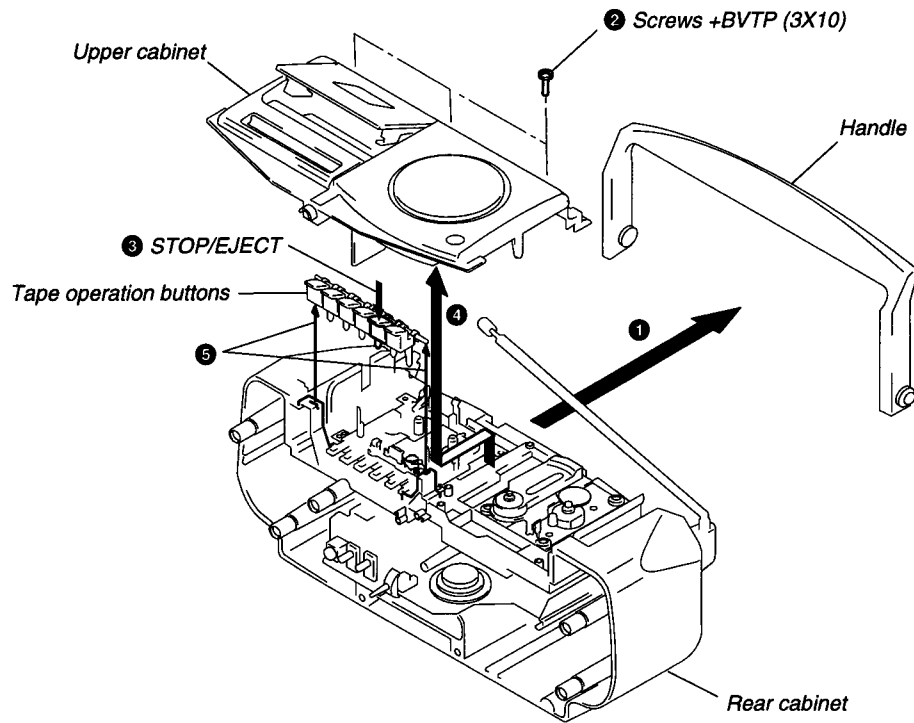
3-1. FRONT CABINET, M/B SW BOARD, SW BOARD REMOVAL



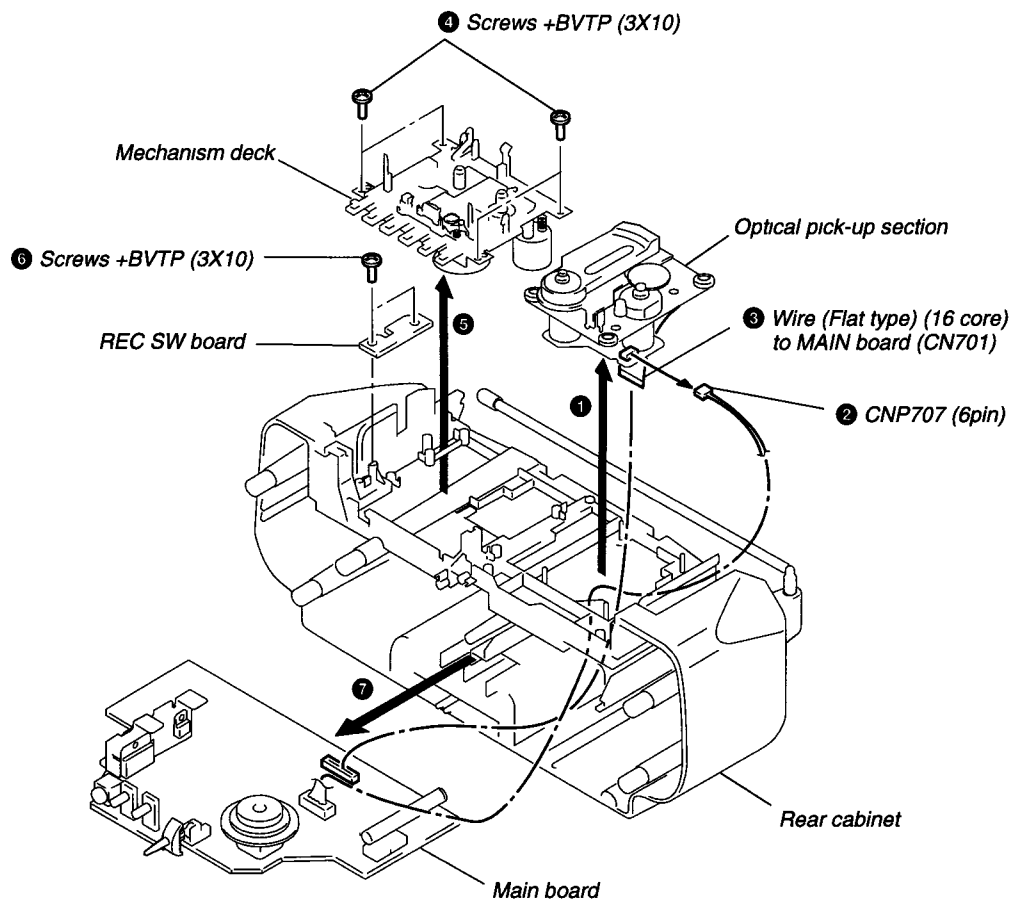
3-2. MEGA BASS BOARD, POWER BOARD, AC INLET BOARD, BATT BOARD REMOVAL



3-3. UPPER CABINET REMOVAL



3-4. OPTICAL PICK-UP SECTION, MECHANISM DECK, MAIN BOARD REMOVAL

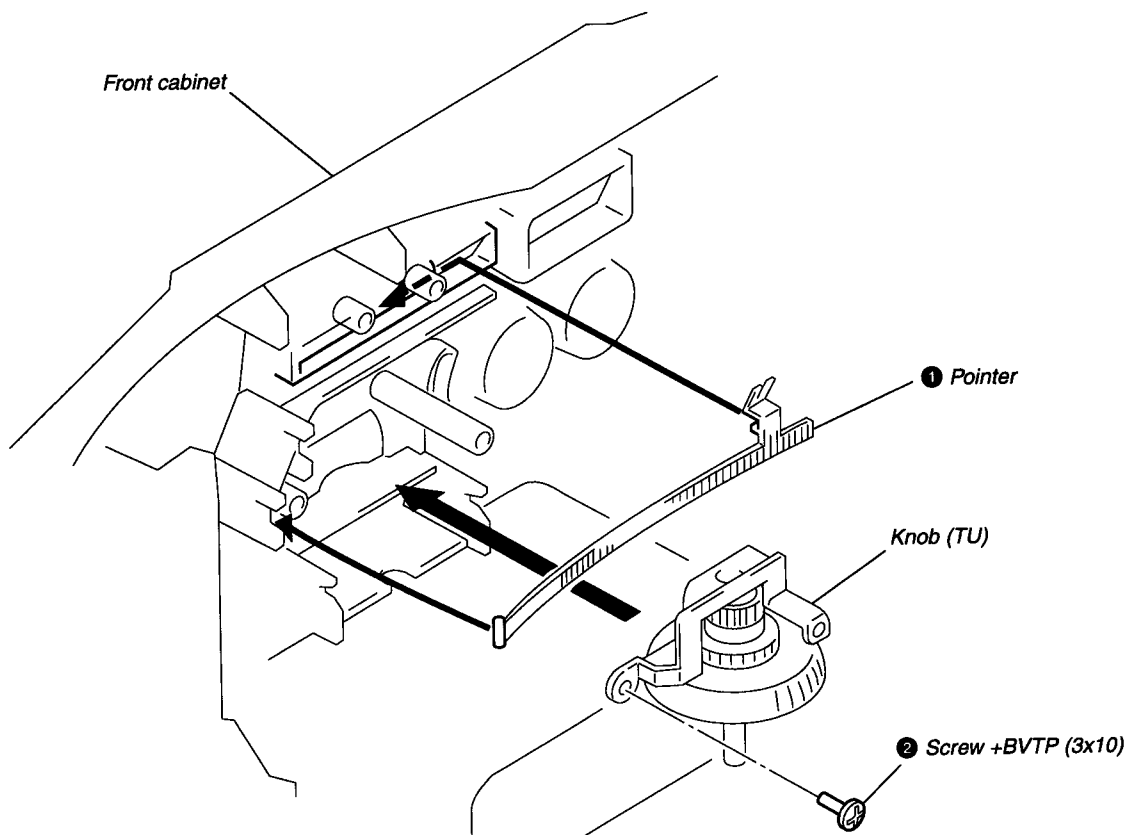


SECTION 4

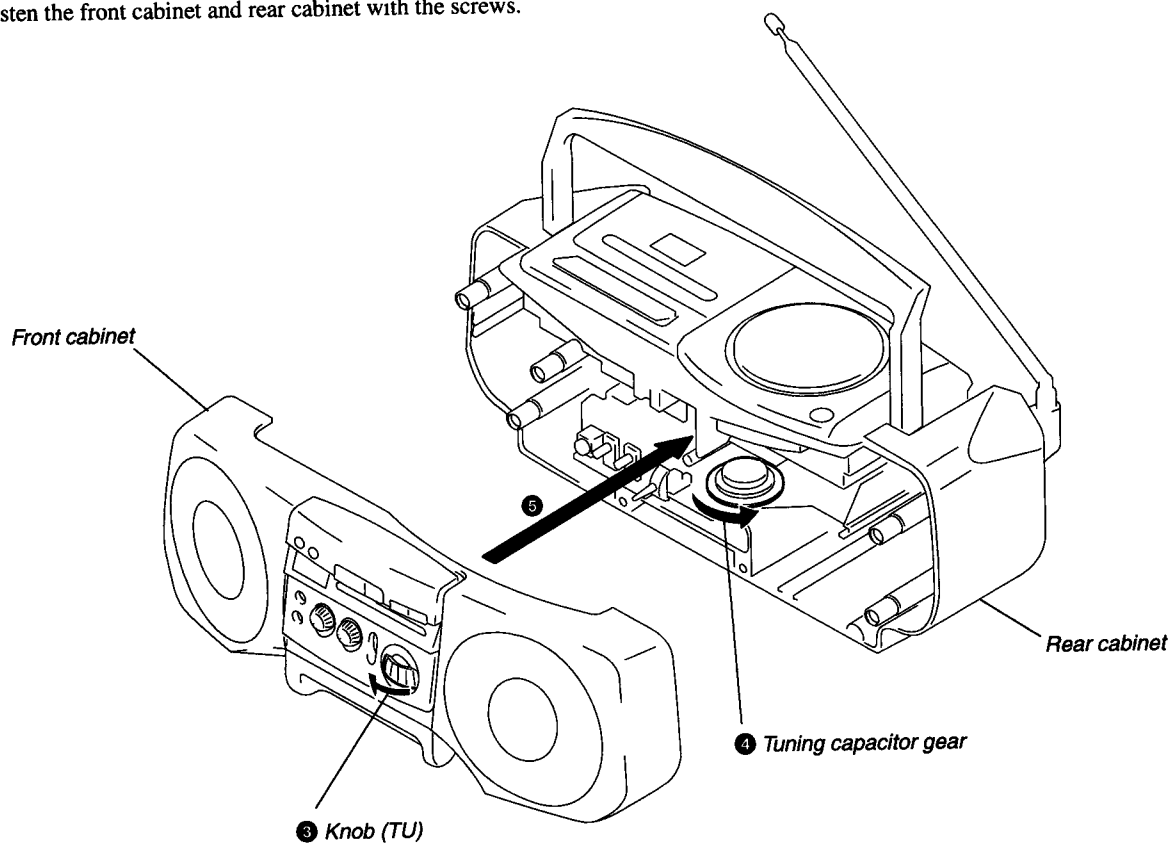
DIAL POINTER INSTALLATION

Note : Follow the installation procedure in the numerical order given.

- ① Align the pointer with the groove of front cabinet and insert it as shown in the illustration.
- ② Align knob (TU) with front cabinet and fasten the screw.



- ③ Turn the knob (TU) fully in the direction of the arrow as shown in the illustration.
- ④ Turn the tuning capacitor gear fully in the direction of the arrow as shown in the illustration.
- ⑤ Fasten the front cabinet and rear cabinet with the screws.



SECTION 5 ADJUSTMENTS

5-1. MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab .

record/playback head	pinch roller
erase head	rubber belts
capstan	
2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Torque	Torque Meter	Meter Reading
Forward	CQ-102C	30 – 70 g•cm (0.42 – 0.97 oz•inch)
Forward Back Tension	CQ-102C	1.5 – 5.5 g•cm (0.020 – 0.076 oz•inch)
Fast Forward	CQ-201B	more than 60 g•cm (more than 0.84 oz•inch)
Rewind	CQ-201B	more than 60 g•cm (more than 0.84 oz•inch)

Tape Tension Measurement

Torque Meter	Meter Reading
CQ-403A	more than 100g (more than 3.53 oz)

5-2. ELECTRICAL ADJUSTMENTS

TAPE RECORDER SECTION

Standard Output Level

Output terminal	HP OUT
load impedance	32Ω
output signal level	0.25V (–10dB)

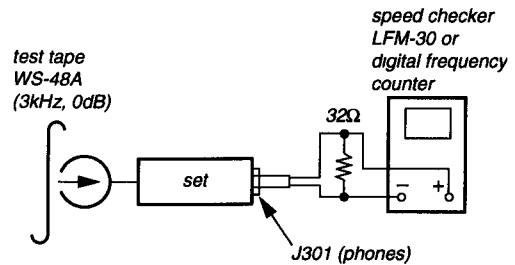
Test Tape

Type	Signal	Used for
WS-48A	3kHz, 0dB	Tape Speed Adjustment
P-4-A063	6.3kHz, –10dB	Head Azimuth Adjustment

Tape Speed Adjustment

Procedure :

Mode : Playback

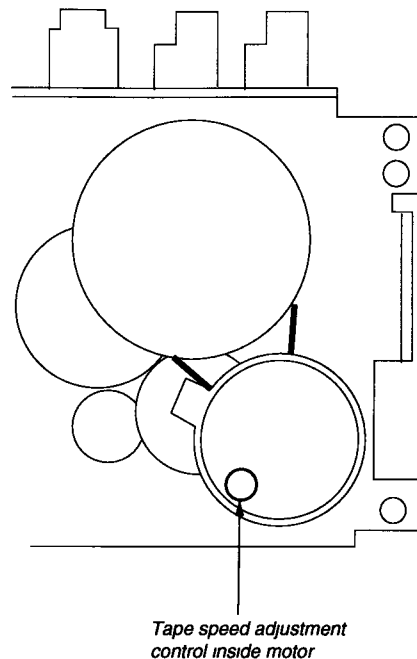


Adjustment Value :

Speed checker	Digital frequency counter
–1 to +1%	2,970 – 3,030Hz

Frequency difference between the beginning and the end of the tape should be within 1.5% (45Hz).

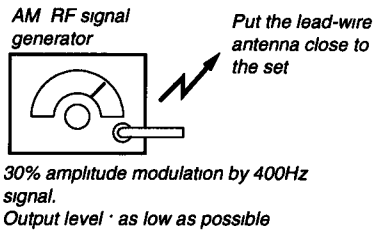
Adjustment Location :



TUNER SECTION

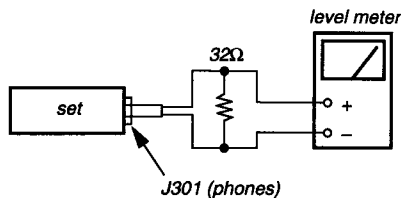
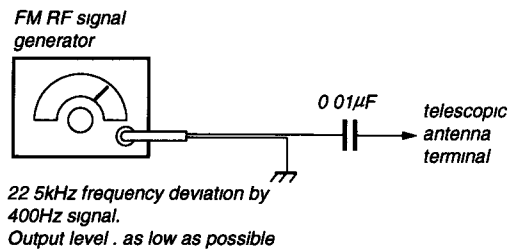
AM Section

Function switch : AM
Volume : MIN



FM Section

Function switch : FM
Volume : MIN



- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

AM IF ALIGNMENT

Adjust for a maximum reading on level meter

T2	455kHz
----	--------

AM FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on level meter

L4	520kHz
----	--------

CT4	1,780kHz
-----	----------

AM TRACKING ADJUSTMENT

Adjust for a maximum reading on level meter.

L3	620kHz
----	--------

CT3	1,400kHz
-----	----------

FM IF ALIGNMENT

Adjust for a maximum reading on level meter

T1	10.7MHz
----	---------

FM FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on level meter

L2	86.5MHz
----	---------

CT2	109.5MHz
-----	----------

FM TRACKING ADJUSTMENT

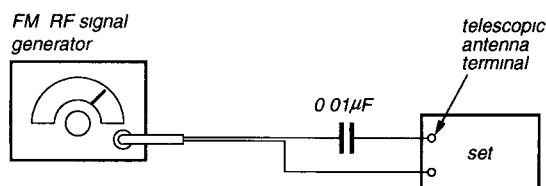
Adjust for a maximum reading on level meter

L1	86.5MHz
----	---------

CT1	109.5MHz
-----	----------

VCO Adjustment

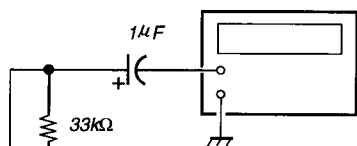
Procedure :



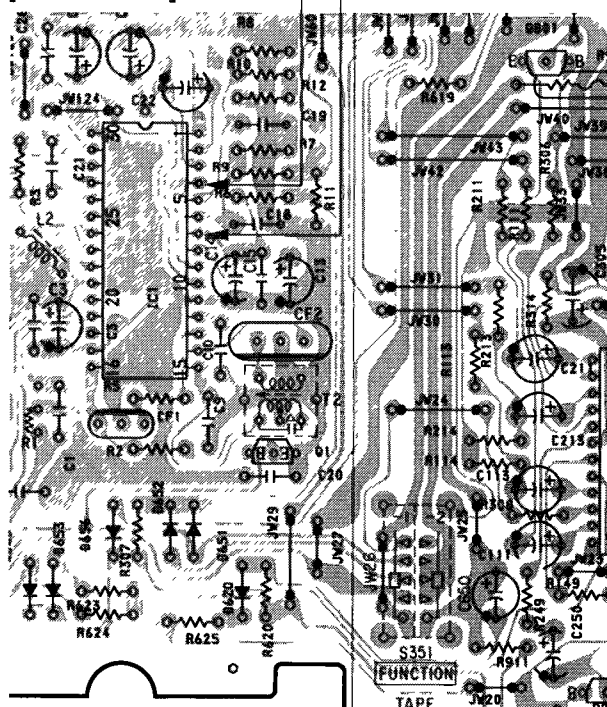
Carrier frequency 98MHz
Modulation No modulation
Output level 138mV (-55dB)

1. Connect the frequency counter to ④ and ⑦ pin of IC 1 as shown the figure below.
2. Turn the set to 98MHz.
3. Adjust RV1 for 76kHz±500Hz reading frequency counter

frequency counter



[MAIN BOARD]



CD SECTION

Note on Adjustment

1. Perform adjustment in test mode.
After adjustment, be sure to release test mode.
2. Perform adjustments in the order given.
3. Use the disc (YEDS-18, Part No. 3-702-101-01) only when so indicated.

Before adjustment

Put the set into test mode and perform the following checks.
Repair if there are any problems.

● Sled Motor Check

1. Press ►► button, then press OFF button.
2. Press ►►, ◀◀ buttons and confirm that the Optical pick-up moves smoothly from the innermost to outermost circumference and back smoothly and with no catching or abnormal noises. (Cancellation of BTL mute)
►► : Optical pick-up moves to the outer circumference
◀◀ : Optical pick-up moves to the inner circumference

● Focus Search Check

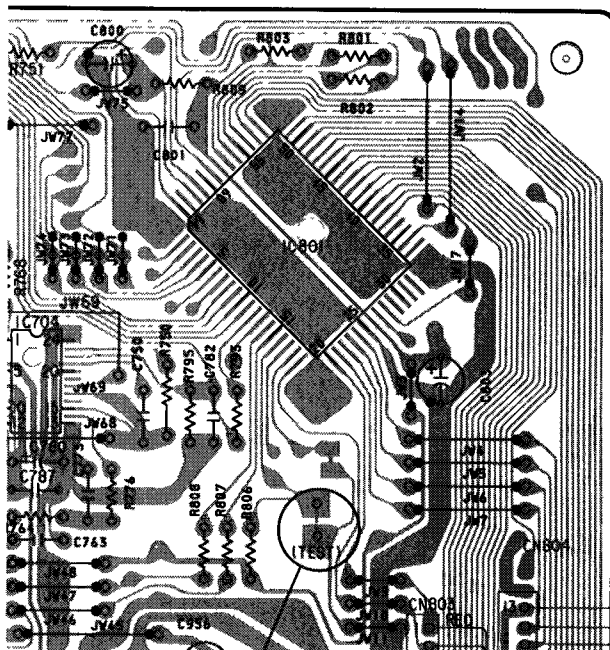
1. Press ►► button. (Focus search operation is performed continuously.)
2. Look at the Optical pick-up objective lens and confirm that it moves up and down smoothly, with no catching or abnormal noises.
3. Press ■ button.
Confirm that focus search operation stops. If it does not, press ■ button again longer.

Note : When the malfunction is occurred by mis-passing other buttons, turn off the power and check again from making the test mode.

How to put the Set into Test Mod

1. Short-circuit following portion (IC801 ⑩ pin) on the MAIN board.
2. Turn the POWER ON.
3. Open the short-circuit to release test mode.

[MAIN BOARD]



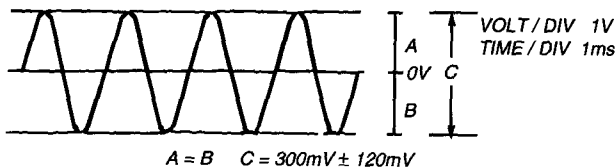
TEST MODE terminal

E-F Balance Adjustment

This adjustment is to be done when the optical pick-up block is replaced.

Adjustment Procedure :

1. Connect the oscilloscope to test point TP (VC) and TP (TEO) on MAIN board
2. Put the set into test mode.
3. optical pick-up setting to the center by ►► or ◄◄ button pushing.
4. Insert disc (YEDS-18) and press ►◄ button.
5. Adjust RV703 so that the oscilloscope traverses waveform is symmetrical, as shown in the figure below.
6. Release test mode after adjustment is completed.



Focus Bias Adjustment

This adjustment is to be done when the optical pick-up block is replaced.

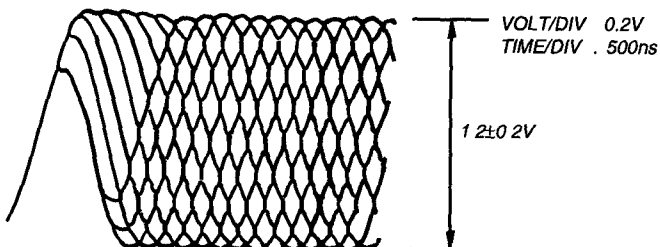
Adjustment procedure :

1. Connect the oscilloscope to test point TP (VC) and TP (RFO) on MAIN board.
2. Put the set into test mode.
3. Optical pick-up setting to the center by ►► or ◄◄ button pushing.
4. Insert disc (YEDS-18) and press ►|| button.
5. Press the ►|| button. (Tracking servo ON)
6. Adjust RV701 so that the oscilloscope waveform is as shown in the figure below (eye pattern).

A good eye pattern means that the diamond shape ($\diamond$) in the center of the waveform can be clearly distinguished

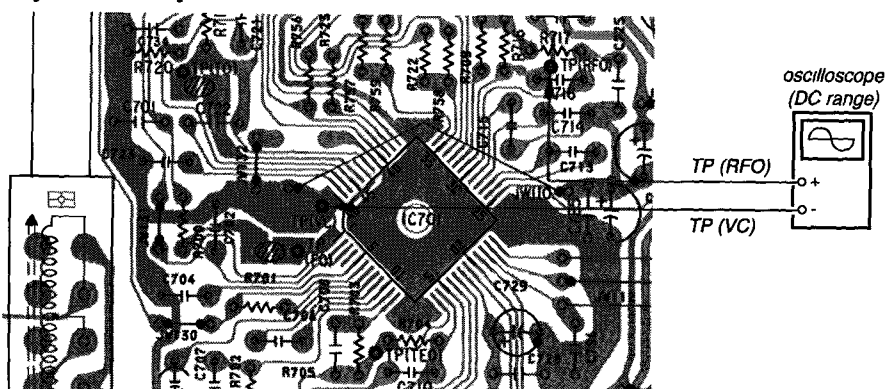
7. Release test mode after adjustment is completed.

- RF signal reference waveform (eye pattern)



When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensitivity.

[MAIN BOARD]



Focus/Tracking Gain Adjustment

A frequency response analyzer is necessary in order to perform this adjustment exactly.

However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, do not perform this adjustment.

Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2-axis device operate.

However, as these reciprocate, the adjustment is at the point where both are satisfied.

- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

Symptoms	Gain	Focus	Tracking
● The time until music starts becomes longer for STOP → ► button or automatic selection (◀◀, ►► buttons pressed) (Normally takes about 2 seconds)		low	low or high
● Music does not start and disc continues to rotate for STOP → ► button or automatic selection (◀◀, ►► buttons pressed)		—	low
● Sound is interrupted during PLAY Or time counter display stops progressing		—	low
● More noise during 2-axis device operation		high	high

The following is a simple adjustment method.

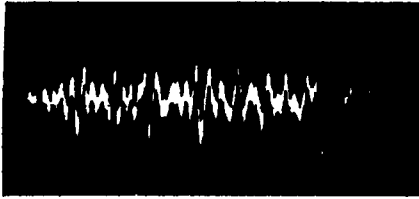
– Primary Adjustment –

Note : Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment. If the positions after the primary adjustment are only a little different, return the controls to the original position.

Procedure :

1. Keep the set horizontal.
If the set is not horizontal, this adjustment cannot be performed due to the gravity against the 2-axis device.
2. Insert disc (YEDS-18) and press **▶▶** button.
3. Connect oscilloscope to TP(FO) and TP (VC) on MAIN board.
4. Adjustment RV702 on MAIN board so that the waveform is as shown in the figure below. (Focus gain adjustment)

VOLT / DIV : 100mV
TIME / DIV : 2ms

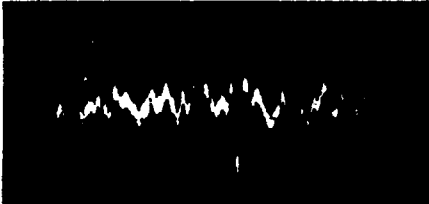


— 100mV
— 0V

- Incorrect Examples (DC level changes more than on adjusted waveform)

low focus gain

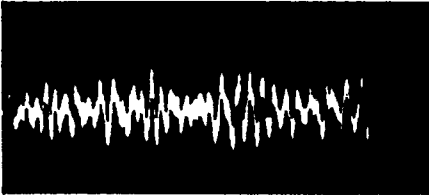
VOLT / DIV : 100mV
TIME / DIV : 2ms



— 200mV
— 0V

high focus gain

VOLT / DIV : 100mV
TIME / DIV : 2ms



— 75mV
— 0V

5. Connect oscilloscope to TP(TO) and TP(VC) on MAIN board.
6. Adjust RV704 on MAIN board so that the waveform is as shown in the figure below. (Tracking gain adjustment)



VOLT / DIV : 1V
TIME / DIV : 2ms

— 0V

- Incorrect Examples (fundamental wave appears)

low tracking gain

VOLT / DIV : 1V
TIME / DIV : 2ms



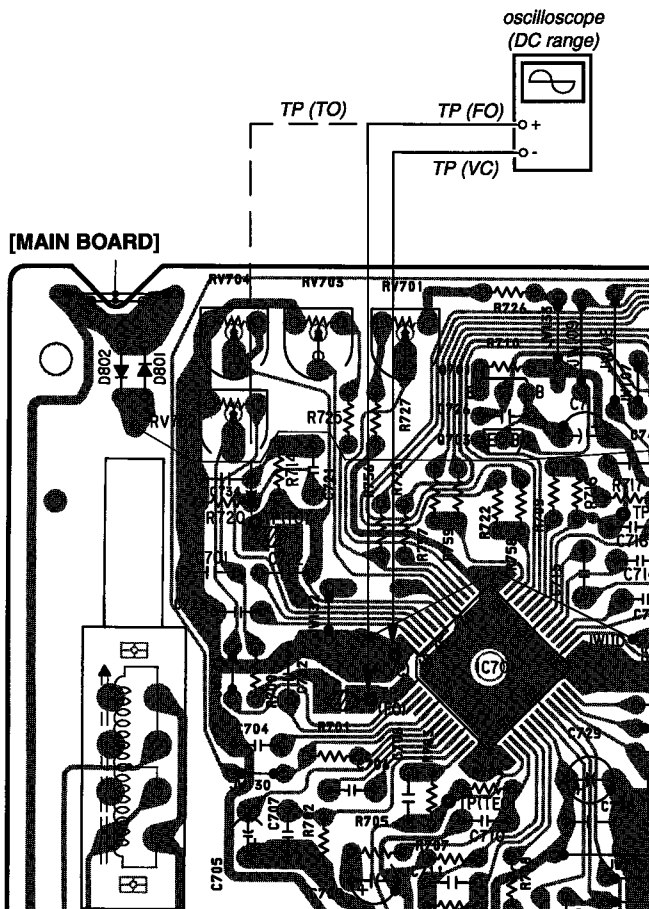
— 0V

high tracking gain
(high fundamental wave
than for low gain)

VOLT / DIV : 1V
TIME / DIV : 2ms

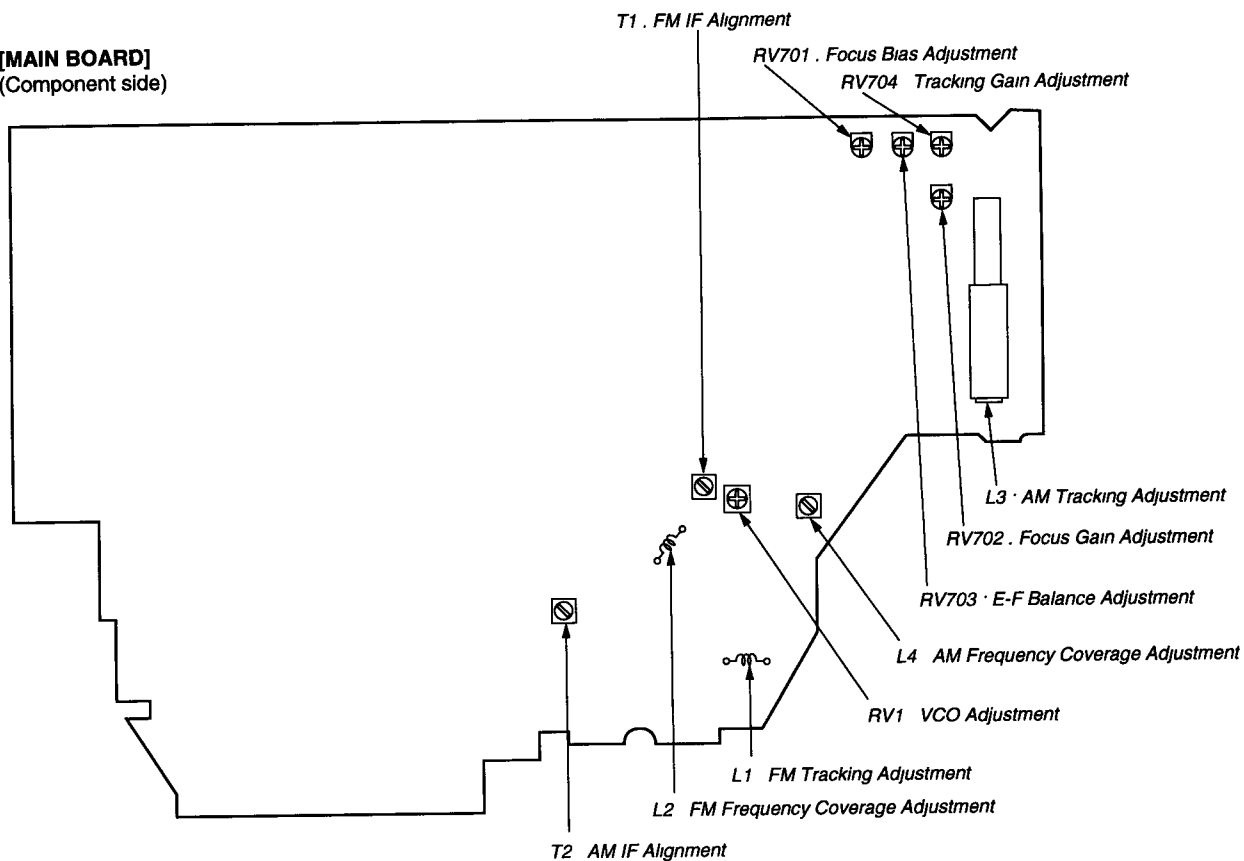


— 0V

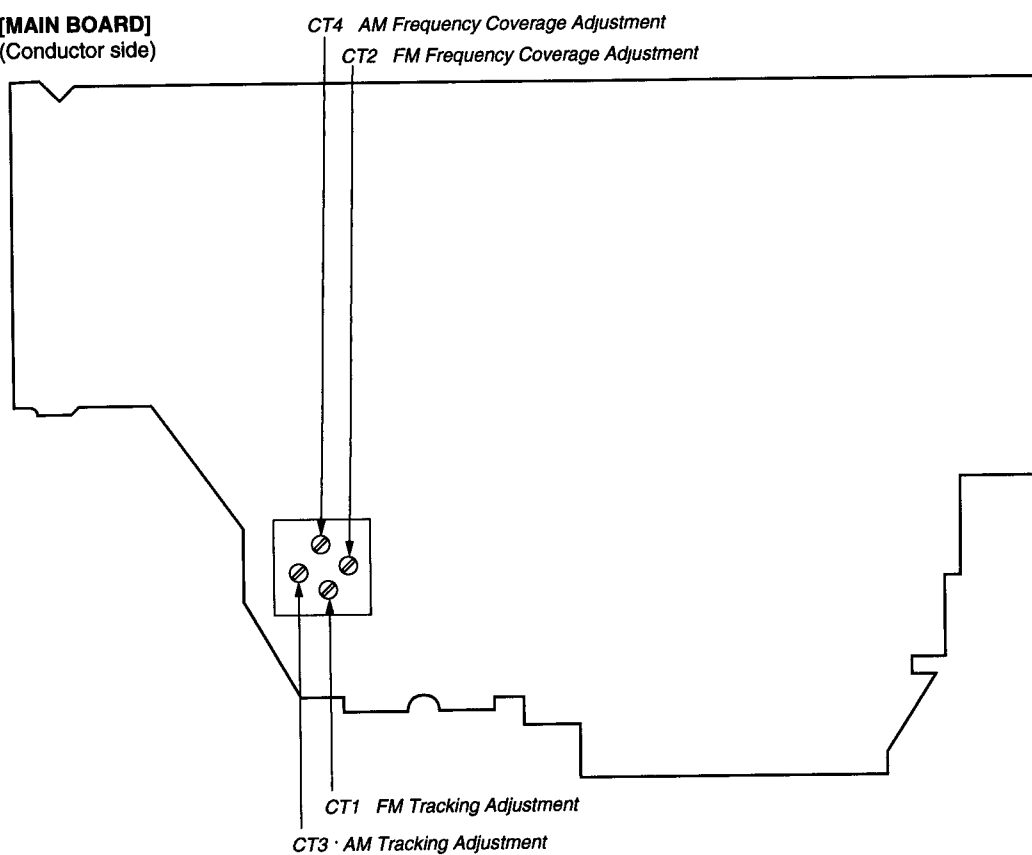


Adjustment Location : MAIN board (Component side)

[MAIN BOARD]
(Component side)



[MAIN BOARD]
(Conductor side)



SECTION 6

EXPLANATION OF IC TERMINALS

IC801 CXP5086H-684Q (SYSTEM CONTROL)

Pin No.	Pin name	I/O	Description
1 – 2	NC	–	Not used (Open).
3	SENS	I	CD SENC input.
4	SCOR	I	CD SCOR input.
5	SQCK	O	CD SQCK output.
6 – 7	NC	–	Not used (Open).
8	SQSO	I	CD SUBQ input.
9	CLOCK	O	Clock output for CD DSP command.
10	XLAT	O	CD system latch output.
11	DATA	O	CD DSP command data output.
12	XRST	O	CD system reset output.
13	GND	–	Ground terminal.
14	REC	I	Function REC input.
15	DOOR	I	CD door open/close input.
16	TEST	I	Test terminal. H : Normal mode, L : Test mode
17	NC	–	Not used (Open).
18	LCD	–	Not used (Connect to ground).
19	MODE	I	PLAY MODE key input.
20	DISP	I	DISPLAY/ENTER key input.
21	K-PLAY	I	PLAY key input.
22	K-STOP	I	STOP key input.
23	K-FR	I	◀◀ key input.
24	K-FF	I	▶▶ key input.
25	GND	–	Ground terminal.
26	VDD	–	Power supply terminal (+5V).
27	NC	–	Not used (Open).
28	C-MUTE	O	Mute signal output.
29 – 33	NC	–	Not used (Open).
34	LDON	O	Laser diode ON/OFF control.
35 – 36	NC	–	Not used (Open).
37 – 50	SEG 0 – 13	O	LCD segment output.
51 – 54	COM 0 – 3	O	LCD common output.
55	VLC1	–	LCD controller driver bias power supply.
56	VLC2	–	LCD controller driver bias power supply.
57	VLC3	–	LCD controller driver bias power supply.
58	VDD	–	Power supply terminal (+5V).
59	VL	–	Not used (Connect to ⑤7 pin).
60	NC	–	Not used (Open).
61	EXT	I	Clock input from digital signal processor.
62	RST	I	Reset terminal.
63	GND	–	Ground terminal.
64	NC	–	Not used (Open).

SECTION 8

EXPLODED VIEWS

NOTE

- -XX, -X mean standardized parts, so they may have some difference from the original one
- Color indication of Appearance Parts

Example .
KNOB, BALANCE (WHITE) ... (RED)

Parts color Cabinet's color

- Items marked “ * ” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

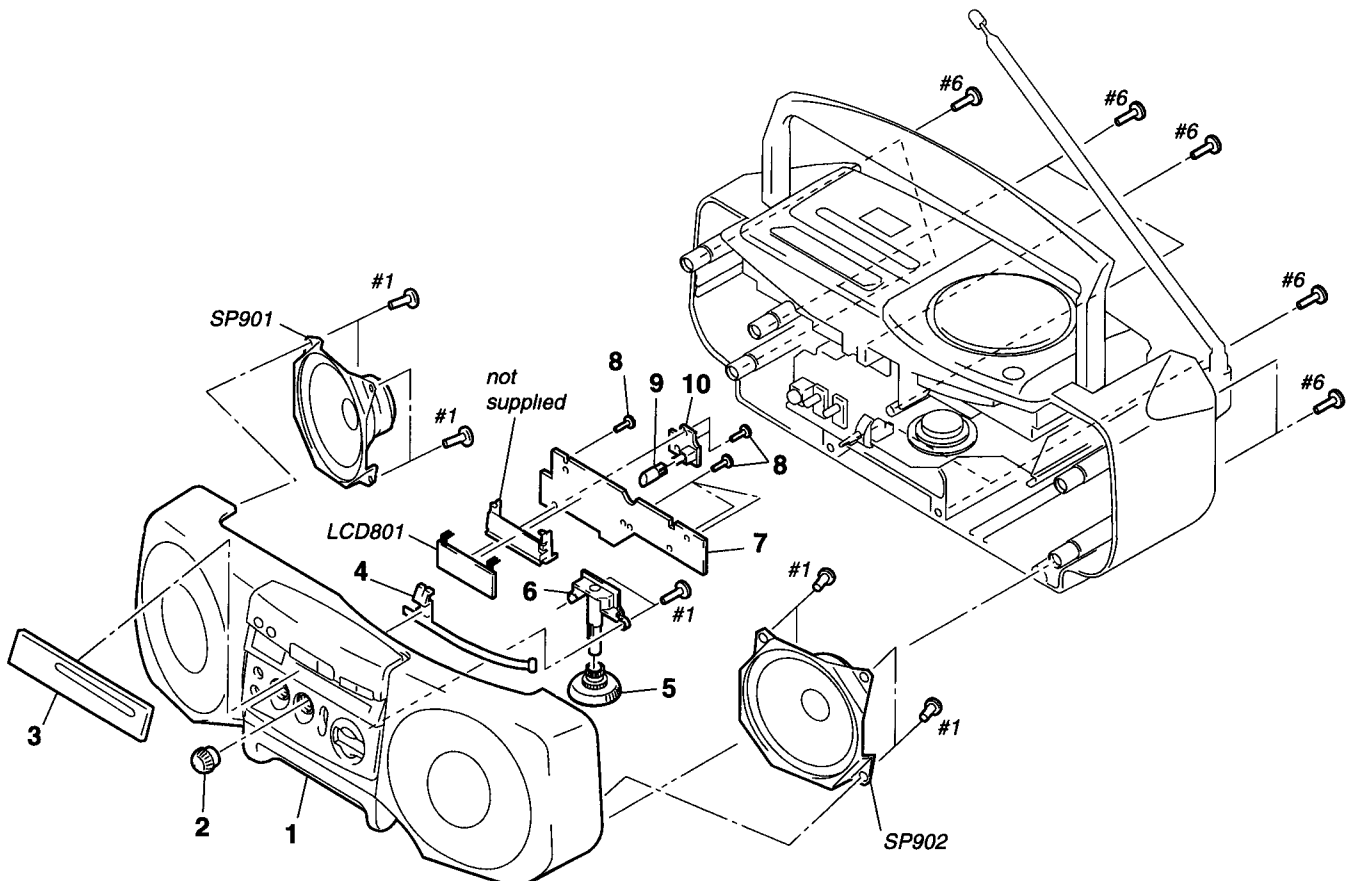
- The mechanical parts with no reference number in the exploded views are not supplied
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list

● Abbreviation
CND : Canadian

The components identified by mark Δ or dotted line with mark Δ are critical for safety
Replace only with part number specified.

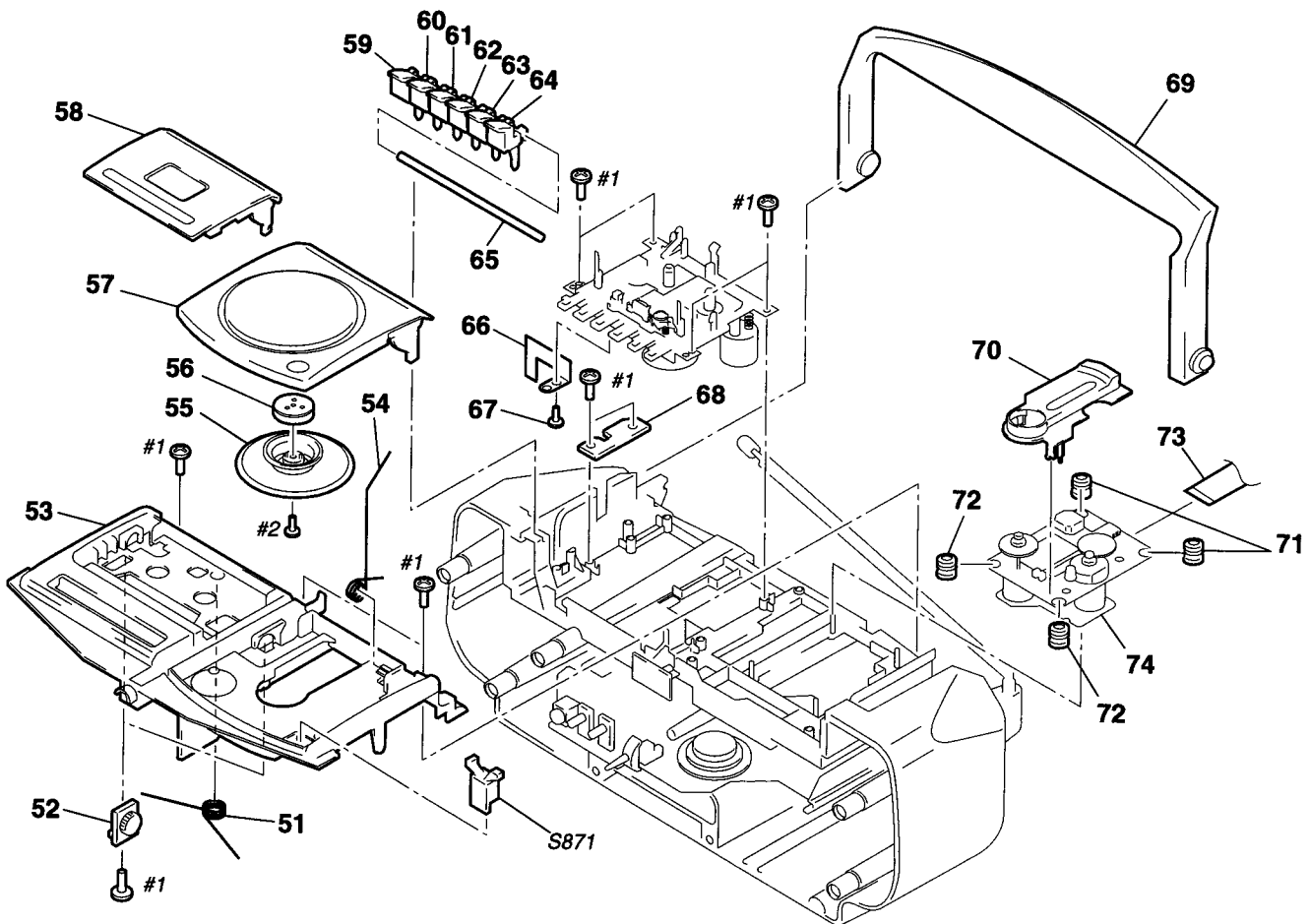
Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié

8-1. FRONT CABINET SECTION



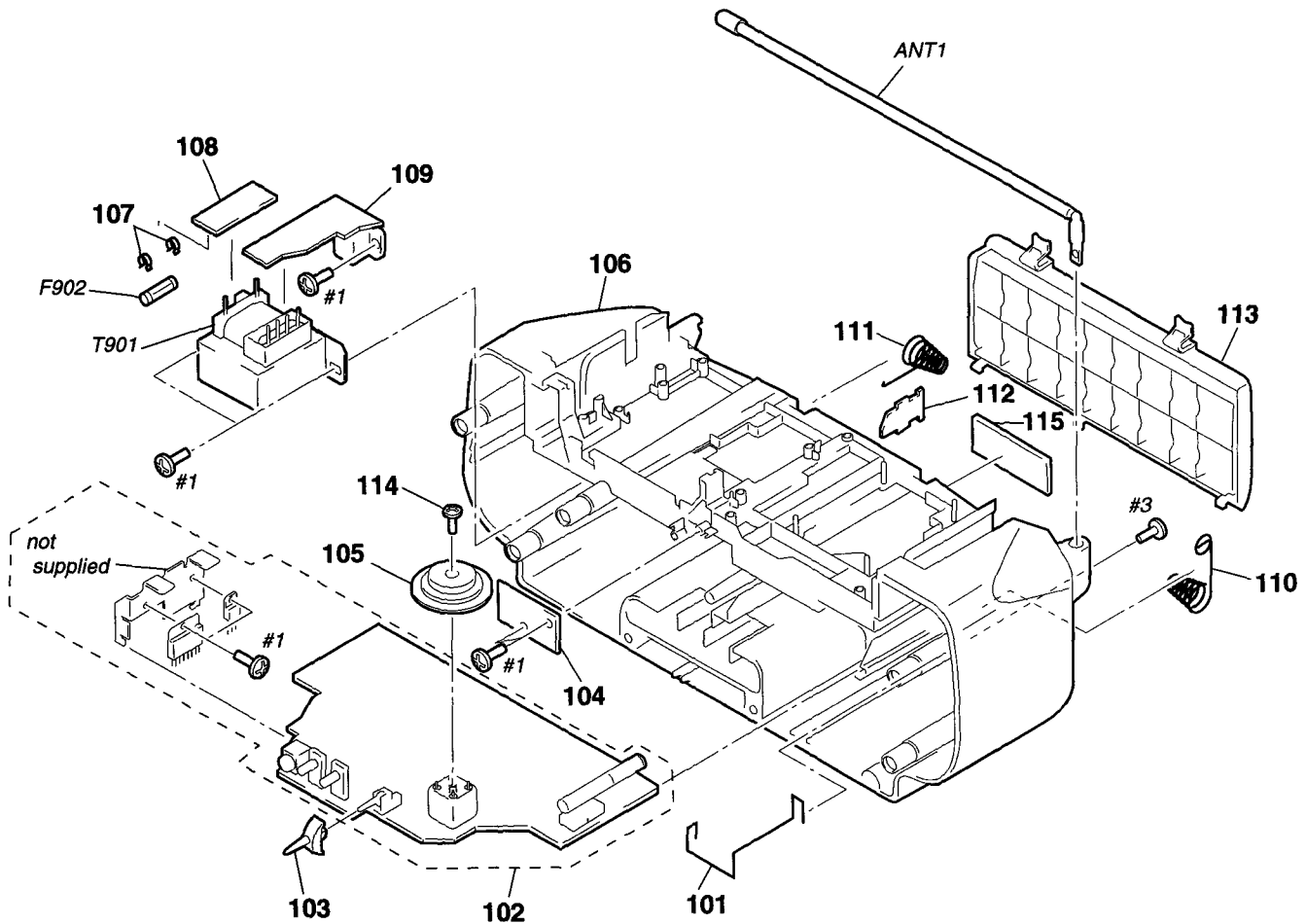
Ref. No	Part No	Description	Remark	Ref. No	Part No	Description	Remark
1	X-3373-390-1	CABINET (FRONT) SUB ASSY... (BLACK) (US)		5	3-009-190-11	KNOB (TU)... (WHITE) (US)	
1	X-3373-934-1	CABINET (FRONT) SUB ASSY... (WHITE) (US)		* 6	3-009-189-01	CHASSIS, TU	
1	X-3373-936-1	CABINET (FRONT) SUB ASSY... (BLACK) (CND)		* 7	1-665-554-11	SW BOARD	
2	3-009-193-01	KNOB (VOL)... (BLACK)		8	4-951-620-01	SCREW (2 6X8), +BVTP	
2	3-009-193-11	KNOB (VOL)... (WHITE) (US)		9	3-009-216-01	KNOB (MEGA BASS)	
3	3-012-689-01	WINDOW, TU... (BLACK)		* 10	1-665-563-11	M/B SW BOARD	
3	3-012-689-51	WINDOW, TU... (WHITE) (US)		LCD801	1-801-639-11	LCD	
4	3-009-191-01	POINTER		SP901	1-505-531-11	SPEAKER (10cm) (L-CH)	
5	3-009-190-01	KNOB (TU)... (BLACK)		SP902	1-505-531-11	SPEAKER (10cm) (R-CH)	

8-2. UPPER CABINET SECTION



Ref No.	Part No	Description	Remark	Ref No	Part No.	Description	Remark
51	3-009-208-01	SPRING, CASSETTE UP		62	3-009-197-11	BUTTON (FF)...(WHITE) (US)	
52	3-922-112-11	DAMPER		63	3-009-200-01	BUTTON (STOP)...(BLACK)	
53	3-009-186-01	CABINET (UPPER)		63	3-009-200-11	BUTTON (STOP)...(WHITE) (US)	
54	3-009-209-01	SPRING, CD UP		64	3-009-195-01	BUTTON (PAUSE)...(BLACK)	
55	3-923-498-01	PLATE, CHUCK		64	3-009-195-11	BUTTON (PAUSE)...(WHITE) (US)	
56	1-452-899-11	MAGNET		* 65	3-009-206-01	SHAFT (MD)	
57	3-009-187-01	LID, CD...(BLACK)		66	3-009-214-01	SPRING, REC	
57	3-009-187-11	LID, CD...(WHITE) (US)		67	4-951-620-01	SCREW (2 6X8), +BVTP	
58	X-3373-389-1	HOLDER SUB ASSY, CASSETTE...(BLACK)		* 68	1-665-562-11	REC SW BOARD	
58	X-3373-974-1	HOLDER SUB ASSY, CASSETTE...(WHITE) (US)		69	3-009-201-01	HANDLE...(BLACK)	
59	3-009-196-01	BUTTON (REC)...(BLACK)		69	3-009-201-11	HANDLE...(WHITE) (US)	
59	3-009-196-11	BUTTON (REC)...(WHITE) (US)		70	3-923-736-01	COVER, CD	
60	3-009-199-01	BUTTON (PLAY)...(BLACK)		71	3-910-095-11	RUBBER, VIBRATION PROOF	
60	3-009-199-11	BUTTON (PLAY)...(WHITE) (US)		72	3-910-095-01	RUBBER, VIBRATION PROOF	
61	3-009-198-01	BUTTON (REW)...(BLACK)		73	1-777-955-11	WIRE, PARALLEL (16 CORE)	
61	3-009-198-11	BUTTON (REW)...(WHITE) (US)		* 74	1-639-678-12	CD MOTOR BOARD	
62	3-009-197-01	BUTTON (FF)...(BLACK)		S871	1-692-960-11	SWITCH, PUSH (1 KEY) (OPEN/CLOSE)	

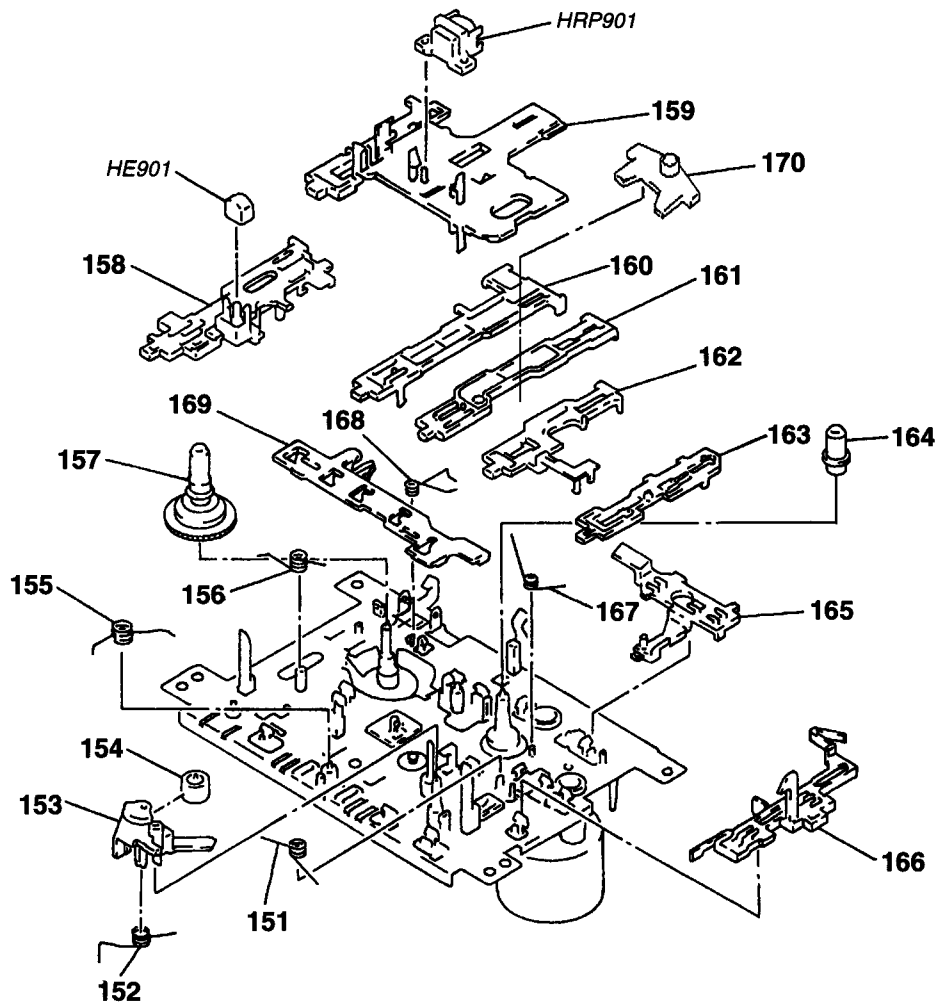
8-3. REAR CABINET SECTION



The components identified by mark Δ or dotted line with mark Δ are critical for safety Replace only with part number specified	Les composants identifiés par une marque Δ sont critiques pour la sécurité Ne les remplacer que par une pièce portant le numéro spécifié
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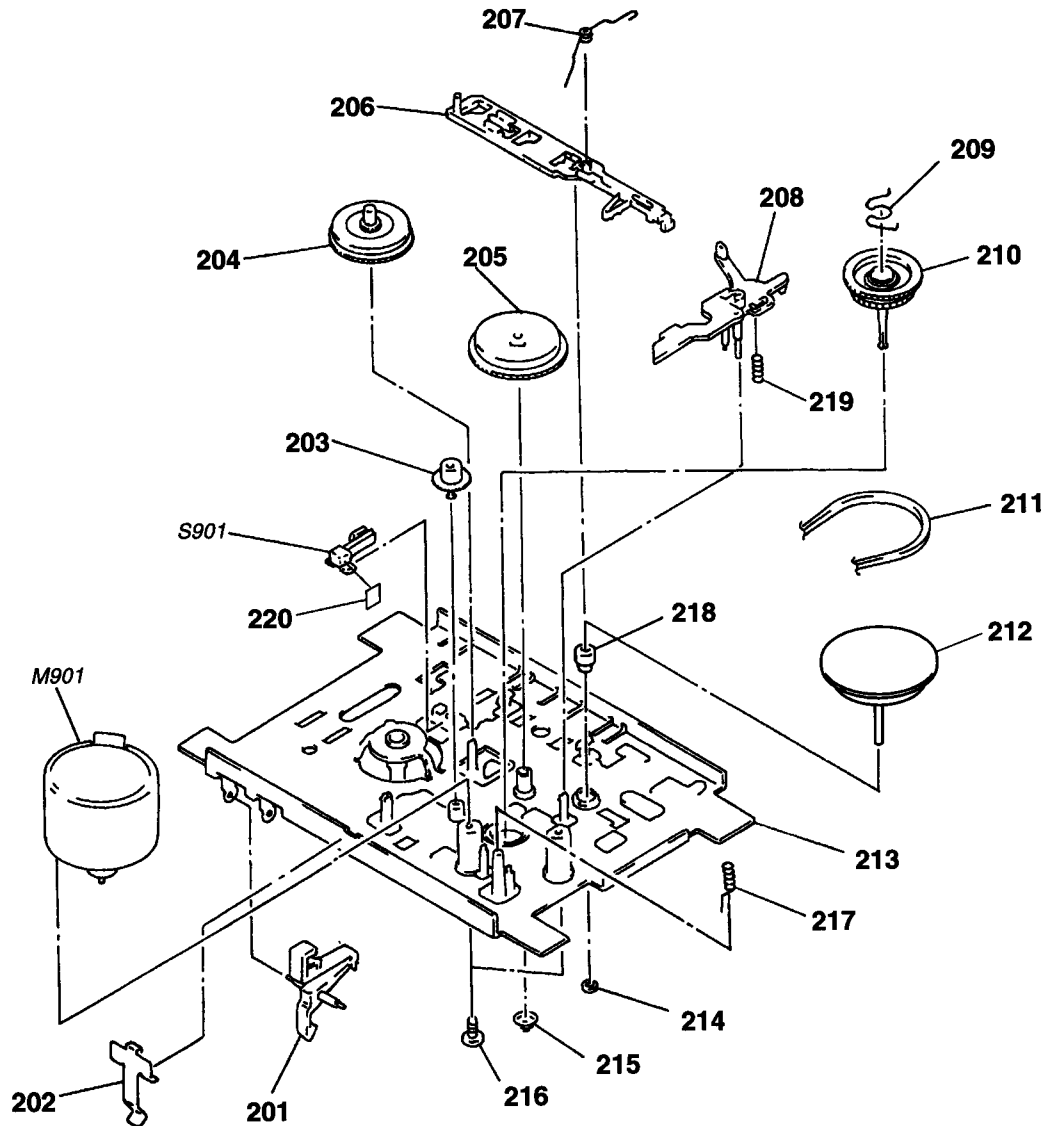
Ref. No.	Part No	Description	Remark	Ref. No.	Part No	Description	Remark
* 101	3-009-215-01	TERMINAL (ANALOG), ANTENNA		110	3-009-210-01	SPRING (+ -)	
* 102	A-3306-307-A	MAIN BOARD, COMPLETE		111	3-009-211-01	SPRING (-)	
103	3-009-194-01	KNOB (FUN)		* 112	1-665-560-11	BATT BOARD	
* 104	1-665-563-11	MEGA BASS BOARD		113	3-009-202-01	LID, BATTERY CASE...(BLACK)	
105	3-009-192-01	GEAR, TUNING CAPACITOR		113	3-009-202-11	LID, BATTERY CASE...(WHITE) (US)	
106	3-013-804-01	CABINET (REAR)...(BLACK) (US)		114	4-951-620-01	SCREW (2.6X8), +BVTP	
106	3-013-804-11	CABINET (REAR)...(WHITE) (US)		115	3-001-605-01	DUCT COVER...(BLACK)	
106	3-013-804-21	CABINET (REAR)...(BLACK) (CND)		115	3-001-605-11	DUCT COVER...(WHITE) (US)	
107	1-533-217-31	HOLDER FUSE		ANT1	1-501-918-11	ANTENNA, TELESCOPIC	
* 108	1-665-559-11	POWER BOARD		Δ F902	1-533-618-11	FUSE, GLASS CYLINDRICAL (3 15A/250V)	
* 109	1-665-561-11	AC INLET BOARD		Δ T901	1-429-101-11	TRANSFORMER, POWER	

8-4. MECHANISM DECK SECTION (1)
(MF-V10-117)



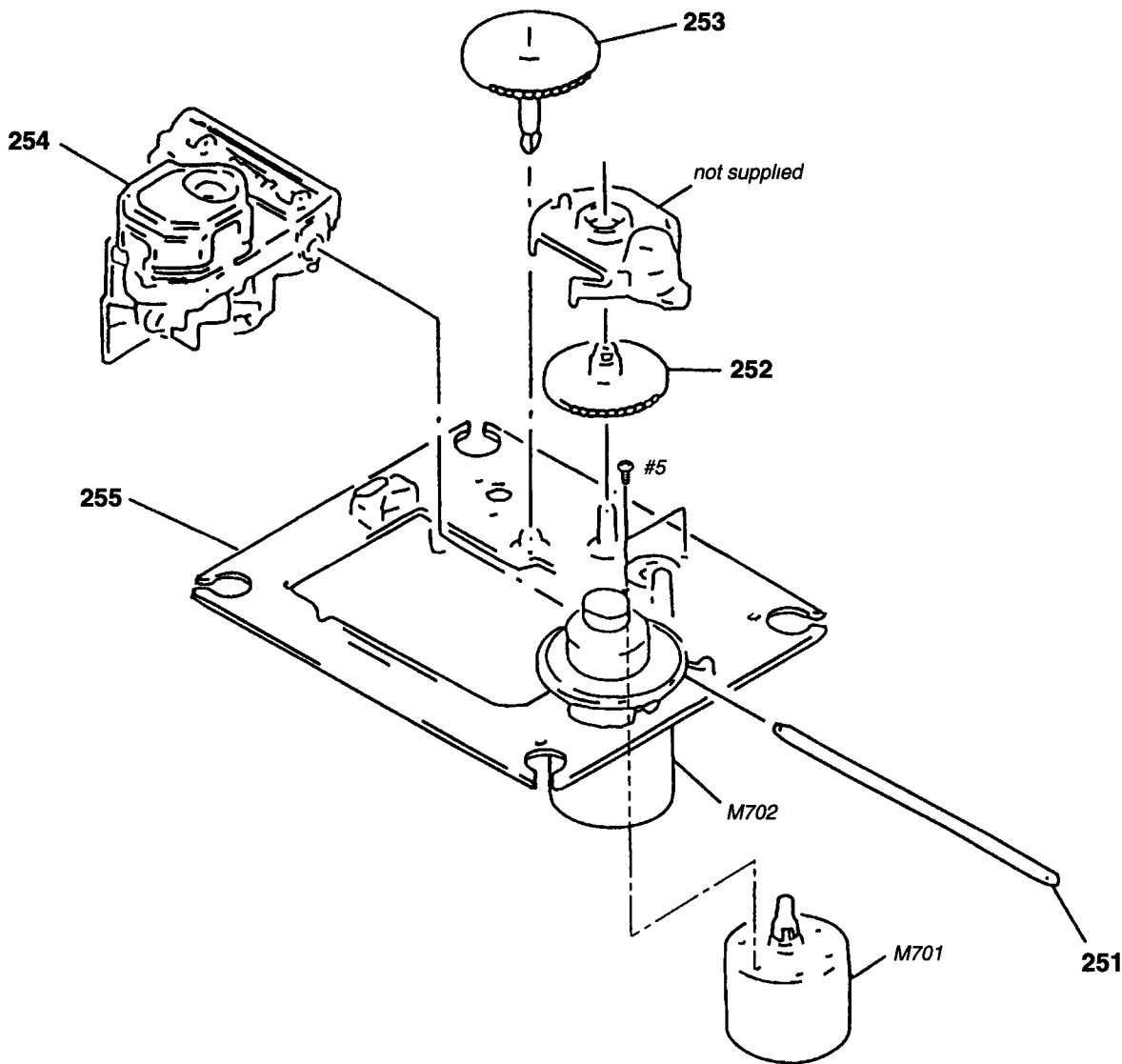
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	3-933-010-01	SPRING (S/P), TORSION		* 162	3-008-587-01	SLIDER	
152	3-933-025-01	SPRING (P), TORSION		* 163	3-008-591-01	SLIDER (PAUSE)	
153	3-933-026-01	LEVER (P)		164	3-933-004-01	CLAW, REEL	
154	3-933-024-01	ROLLER, PINCH		* 165	3-933-021-01	SLIDER (FRP)	
155	3-933-019-01	SPRING (F/R), TORSION		166	3-933-006-01	SLIDER (EJECT)	
156	3-933-028-01	SPRING (FWD), TORSION		167	3-934-833-01	SPRING (FRP)	
157	3-933-016-01	GEAR (S REEL)		168	3-934-834-01	SPRING (BT)	
158	3-008-590-01	SLIDER (REC)		* 169	3-933-007-01	PLATE, LOCK	
159	3-008-592-01	BASE (H), HEAD		* 170	3-012-114-01	LEVER (FR)	
* 160	3-008-588-01	SLIDER (REW)		HE901	1-543-876-11	HEAD (ERASE)	
* 161	3-008-589-01	SLIDER (FF)		HRP901	1-500-364-11	HEAD, MAGNETIC (RECORD/ PLAYBACK)	

5. MECHANISM DECK SECTION (2)
(MF-V10-117)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	3-933-029-01	LEVER, ERASING PREVENTION		212	X-3372-924-1	FLYWHEEL ASSY	
202	3-933-182-01	SPRING, CASSETTE		213	3-932-993-01	CHASSIS, OUTSERT	
203	3-932-995-01	GEAR (MID)		214	3-343-358-01	RING, RETAINING	
204	X-3371-667-1	CLUTCH ASSY		215	3-933-005-01	SPRING (CAM), COMPRESSION	
205	3-932-997-01	GEAR (CAM)		216	7-621-770-87	SCREW +B 2 6X5	
206	3-932-999-01	SLIDER (SW)		217	3-937-760-01	SPRING (GROUND), COMPRESSION	
207	3-932-998-01	SPRING (GROUND), TORSION		218	3-934-336-01	BEARING	
208	3-932-996-01	LEVER (S OFF)		219	3-939-383-01	SPRING, COMPRESSION	
209	3-934-835-01	SPRING (S.OFF)		220	3-320-454-01	SHEET	
210	X-3371-666-1	REEL ASSY, T		M901	A-3304-621-A	MOTOR ASSY	
211	3-933-020-01	BELT		S901	1-762-679-11	SWITCH, LEAF (MOTOR ON/OFF)	

8-6. OPTICAL PICK-UP SECTION
(KSM-213CAM/C1NP)



The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified	Les composants identifiés par une marque Δ sont critiques pour la sécurité Ne les remplacer que par une pièce portant le numéro spécifié.
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Ref No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	2-626-908-01	SHAFT, SLED		255	X-2625-770-1	CHASSIS ASSY (MB) (RP), MOTOR (INCLUDING M702) (SPINDLE)	
252	2-627-003-02	GEAR (B)(RP)		M701	X-2625-769-1	GEAR ASSY (MB) (RP), MOTOR (SLED)	
253	2-626-907-01	GEAR (A) (S)					
Δ 254	8-820-018-02	OPTICAL PICK-UP KSS-213C					

SECTION 9 ELECTRICAL PARTS LIST

AC INLET

BATT

CD MOTOR

MAIN

TE :

Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.

XX, -X mean standardized parts, so they may have some difference from the original one.

RESISTORS

All resistors are in ohms

METAL Metal-film resistor

METAL OXIDE Metal oxide-film resistor

nonflammable

Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

● SEMICONDUCTORS

In each case, u : μ , for example :

uA : μ A, uPA : μ PA

uPB : μ PB, uPC : μ PC

uPD : μ PD

● CAPACITORS

uF : μ F

● COILS

uH : μ H

● Abbreviation

CND Canadian

The components identified by mark Δ or dotted line with mark Δ are critical for safety.

Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	1-665-561-11	AC INLET BOARD *****		C16	1-126-961-11	ELECT 2.2uF 20% 50V	
		< CAPACITOR >		C17	1-124-443-00	ELECT 100uF 20% 10V	
				C18	1-162-842-11	CERAMIC 0.018uF 10% 16V	
				C19	1-162-842-11	CERAMIC 0.018uF 10% 16V	
C907	1-162-294-31	CERAMIC 0.001uF 10% 50V		C20	1-162-306-11	CERAMIC 0.01uF 20% 16V	
		< JACK >		C21	1-162-205-31	CERAMIC 18PF 5% 50V	
J901	1-540-009-11	INLET, AC (~AC IN)		C22	1-124-903-11	ELECT 1uF 20% 50V	
		*****		C23	1-124-902-00	ELECT 0.47uF 20% 50V	
				C24	1-126-963-11	ELECT 4.7uF 20% 50V	
	1-665-560-11	BATT BOARD *****		C25	1-162-294-31	CERAMIC 0.001uF 10% 50V	
		*****		C26	1-162-294-31	CERAMIC 0.001uF 10% 50V	
				C28	1-162-306-11	CERAMIC 0.01uF 20% 16V	
				C101	1-162-301-11	CERAMIC 0.0015uF 20% 16V	
	1-639-678-12	CD MOTOR BOARD *****		C103	1-104-664-11	ELECT 47uF 20% 10V	
		< CONNECTOR >		C104	1-161-020-11	CERAMIC 0.039uF 10% 25V	
CNP707	1-564-722-11	PIN, CONNECTOR (SMALL TYPE) 6P		C105	1-162-302-11	CERAMIC 0.0022uF 20% 16V	
		< SWITCH >		C111	1-124-902-00	ELECT 0.47uF 20% 50V	
S701	1-572-085-11	SWITCH, LEAF (CD DET)		C113	1-124-903-11	ELECT 1uF 20% 50V	
		*****		C150	1-126-963-11	ELECT 4.7uF 20% 50V	
	A-3306-307-A	MAIN BOARD, COMPLETE *****		C151	1-136-160-00	FILM 0.039uF 5% 50V	
				C191	1-126-927-11	ELECT 2200uF 20% 10V	
	3-009-192-01	GEAR, TUNING CAPACITOR		C192	1-124-903-11	ELECT 1uF 20% 50V	
	3-009-194-01	KNOB (FUN)		C193	1-136-153-00	CERAMIC 0.01uF 5% 50V	
	7-621-770-XX	SCREW +P 2.6X8		C194	1-102-074-00	CERAMIC 0.001uF 10% 50V	
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S		C201	1-162-301-11	CERAMIC 0.0015uF 20% 16V	
		< CAPACITOR >		C203	1-104-664-11	ELECT 47uF 20% 10V	
C1	1-162-215-31	CERAMIC 47PF 5% 50V		C204	1-161-020-11	CERAMIC 0.039uF 10% 25V	
C2	1-162-306-11	CERAMIC 0.01uF 20% 16V		C205	1-162-302-11	CERAMIC 0.0022uF 20% 16V	
C3	1-104-664-11	ELECT 47uF 20% 10V		C211	1-124-902-00	ELECT 0.47uF 20% 50V	
C5	1-162-205-31	CERAMIC 18PF 5% 50V		C213	1-124-903-11	ELECT 1uF 20% 50V	
C6	1-102-961-00	CERAMIC 27PF 5% 50V		C250	1-126-963-11	ELECT 4.7uF 20% 50V	
C7	1-102-943-00	CERAMIC 6.0PF +0.5PF 50V		C251	1-136-160-00	FILM 0.039uF 5% 50V	
C8	1-162-193-31	CERAMIC 3.3PF 10% 50V		C291	1-126-927-11	ELECT 2200uF 20% 10V	
C9	1-162-306-11	CERAMIC 0.01uF 20% 16V		C292	1-124-903-11	ELECT 1uF 20% 50V	
C10	1-162-306-11	CERAMIC 0.01uF 20% 16V		C293	1-136-153-00	CERAMIC 0.01uF 5% 50V	
C11	1-126-963-11	ELECT 4.7uF 20% 50V		C294	1-102-074-00	CERAMIC 0.001uF 10% 50V	
C12	1-124-903-11	ELECT 1uF 20% 50V		C304	1-124-443-00	ELECT 100uF 20% 10V	
C13	1-104-664-11	ELECT 47uF 20% 10V		C305	1-124-443-00	ELECT 100uF 20% 10V	
C14	1-104-664-11	ELECT 47uF 20% 10V		C306	1-124-443-00	ELECT 100uF 20% 10V	
C15	1-162-306-11	CERAMIC 0.01uF 20% 16V		C340	1-162-294-31	CERAMIC 0.001uF 10% 50V	
				C342	1-130-481-00	MYLAR 0.0068uF 5% 50V	
				C344	1-104-664-11	ELECT 47uF 20% 10V	
				C351	1-124-907-11	ELECT 10uF 20% 50V	
				C391	1-104-666-11	ELECT 220uF 20% 10V	
				C392	1-126-961-11	ELECT 2.2uF 20% 50V	
				C393	1-124-902-00	ELECT 0.47uF 20% 50V	

MAIN

Ref No.	Part No	Description	Remark			Ref No.	Part No.	Description	Remark		
C394	1-162-294-31	CERAMIC	0 001uF	10%	50V	C785	1-162-294-31	CERAMIC	0 001uF	10%	50V
C395	1-162-294-31	CERAMIC	0 001uF	10%	50V	C787	1-162-294-31	CERAMIC	0.001uF	10%	50V
C396	1-162-839-11	CERAMIC	0.01uF	10%	16V	C792	1-162-282-31	CERAMIC	100PF	10%	50V
C397	1-162-839-11	CERAMIC	0.01uF	10%	16V	C793	1-162-282-31	CERAMIC	100PF	10%	50V
C650	1-104-664-11	ELECT	47uF	20%	16V	C796	1-161-772-11	CERAMIC	0.1uF	10%	25V
C651	1-126-963-11	ELECT	4 7uF	20%	50V	C797	1-162-294-31	CERAMIC	0.001uF	10%	50V
C653	1-104-664-11	ELECT	47uF	20%	10V	C800	1-104-664-11	ELECT	47uF	20%	10V
C701	1-162-302-11	CERAMIC	0.0022uF	30%	16V	C801	1-162-294-31	CERAMIC	0 001uF	10%	50V
C702	1-136-165-00	FILM	0.1uF	5%	50V	C803	1-104-664-11	ELECT	47uF	20%	10V
C704	1-136-165-00	FILM	0.1uF	5%	50V	C910	1-126-937-11	ELECT	4700uF	20%	16V
C705	1-131-375-00	TANTALUM	4 7uF	10%	10V	C911	1-136-153-00	CERAMIC	0 01uF	5%	50V
C706	1-130-489-00	MYLAR	0.033uF	5%	50V	C951	1-102-074-00	CERAMIC	0.001uF	10%	50V
C707	1-130-486-00	MYLAR	0.018uF	10%	50V	C952	1-162-294-31	CERAMIC	0 001uF	10%	50V
C708	1-162-199-31	CERAMIC	10PF	5%	50V	C953	1-104-664-11	ELECT	47uF	20%	10V
C709	1-126-962-11	ELECT	3.3uF	20%	50V	C955	1-124-443-00	ELECT	100uF	20%	10V
C710	1-130-493-00	MYLAR	0.068uF	5%	50V	C956	1-104-664-11	ELECT	47uF	20%	10V
C711	1-162-215-31	CERAMIC	47PF	5%	50V	C957	1-162-294-31	CERAMIC	0.001uF	10%	50V
C712	1-161-772-11	CERAMIC	0 1uF	10%	25V	< FILTER >					
C713	1-130-489-00	MYLAR	0 033uF	5%	50V	CF1	1-760-235-11	FILTER, CERAMIC			
C714	1-162-306-11	CERAMIC	0 01uF	20%	16V	CF2	1-577-072-11	FILTER, CERAMIC			
C715	1-130-489-00	MYLAR	0.033uF	5%	50V	< CONNECTOR >					
C716	1-136-169-00	FILM	0.22uF	5%	50V	CN301	1-506-987-11	PIN, CONNECTOR (PC BOARD) 5P			
C717	1-104-664-11	ELECT	47uF	20%	10V	CN302	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P			
C718	1-124-907-11	ELECT	10uF	20%	50V	CN601	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P			
C719	1-162-282-31	CERAMIC	100PF	10%	50V	CN701	1-770-674-11	CONNECTOR, FFC/FPC 16P			
C721	1-130-491-00	MYLAR	0 047uF	5%	50V	CN803	1-691-583-11	PIN, CONNECTOR (PC BOARD) 12P			
C722	1-161-494-00	CERAMIC	0 022uF	25V		* CN804	1-691-584-11	PIN, CONNECTOR (PC BOARD) 13P			
C723	1-136-165-00	FILM	0 1uF	5%	50V	* CN911	1-691-573-11	PIN, CONNECTOR (PC BOARD) 2P			
C725	1-162-199-31	CERAMIC	10PF	5%	50V	CN912	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P			
C726	1-162-294-31	CERAMIC	0 001uF	10%	50V	< TRIMMER >					
C727	1-162-306-11	CERAMIC	0 01uF	20%	16V	CT1-1	1-141-559-11	CAP, VAR (TUNE)			
C728	1-161-772-11	CERAMIC	0.1uF	10%	25V	CT1-2	1-141-559-11	CAP, VAR (TUNE)			
C729	1-104-664-11	ELECT	47uF	20%	10V	CT1-3	1-141-559-11	CAP, VAR (TUNE)			
C730	1-124-473-11	ELECT	1000uF	20%	10V	CT1-4	1-141-559-11	CAP, VAR (TUNE)			
C731	1-162-305-11	CERAMIC	0 0068uF	30%	16V	< VARIABLE CAPACITOR >					
C732	1-162-306-11	CERAMIC	0 01uF	20%	16V	CV1-1	1-141-559-11	CAP, VAR (TUNE)			
C733	1-136-153-00	CERAMIC	0 01uF	5%	50V	CV1-2	1-141-559-11	CAP, VAR (TUNE)			
C734	1-162-305-11	CERAMIC	0 0068uF	30%	16V	CV1-3	1-141-559-11	CAP, VAR (TUNE)			
C736	1-124-443-00	ELECT	100uF	20%	10V	CV1-4	1-141-559-11	CAP, VAR (TUNE)			
C742	1-136-173-00	FILM	0 47uF	5%	50V	< DIODE >					
C743	1-162-290-31	CERAMIC	470PF	10%	50V	D391	8-719-991-33	DIODE 1SS133T-77			
C744	1-162-286-21	CERAMIC	220PF	10%	50V	D620	8-719-991-33	DIODE 1SS133T-77			
C745	1-124-902-00	ELECT	0.47uF	20%	50V	D651	8-719-991-33	DIODE 1SS133T-77			
C746	1-162-306-11	CERAMIC	0 01uF	20%	16V	D652	8-719-991-33	DIODE 1SS133T-77			
C747	1-162-306-11	CERAMIC	0.01uF	20%	16V	D653	8-719-991-33	DIODE 1SS133T-77			
C750	1-162-294-31	CERAMIC	0.001uF	10%	50V	D655	8-719-991-33	DIODE 1SS133T-77			
C751	1-162-294-31	CERAMIC	0.001uF	10%	50V	D656	8-719-991-33	DIODE 1SS133T-77			
C752	1-162-199-31	CERAMIC	10PF	5%	50V	D704	8-719-991-33	DIODE 1SS133T-77			
C753	1-162-199-31	CERAMIC	10PF	5%	50V	D801	8-719-991-33	DIODE 1SS133T-77			
C754	1-162-207-31	CERAMIC	22PF	5%	50V	D802	8-719-991-33	DIODE 1SS133T-77			
C756	1-162-306-11	CERAMIC	0 01uF	20%	16V	D911	8-719-059-97	LED L-34HD (OPR/BATT)			
C759	1-162-294-31	CERAMIC	0.001uF	10%	50V	D912	8-719-991-33	DIODE 1SS133T-77			
C763	1-162-294-31	CERAMIC	0.001uF	10%	50V	D950	8-719-991-33	DIODE 1SS133T-77			
C764	1-126-963-11	ELECT	4 7uF	20%	50V	D951	8-719-923-52	DIODE MTZJ-T-77-7.5B			
C773	1-162-294-31	CERAMIC	0 001uF	10%	50V						
C774	1-126-963-11	ELECT	4.7uF	20%	50V						
C777	1-162-282-31	CERAMIC	100PF	10%	50V						
C780	1-124-443-00	ELECT	100uF	20%	10V						
C781	1-124-443-00	ELECT	100uF	20%	10V						
C782	1-161-772-11	CERAMIC	0.1uF	10%	25V						

Ref No.	Part No	Description	Remark	Ref No	Part No.	Description	Remark
< IC >				R203	1-249-440-11	CARBON	82K 5% 1/4W
IC1	8-752-050-20	IC CXA1238S		R204	1-247-843-11	CARBON	3 3K 5% 1/4W
IC301	8-759-264-71	IC TA2068N		R205	1-249-417-11	CARBON	1K 5% 1/4W
IC305	8-759-452-80	IC LA4600		R211	1-249-425-11	CARBON	4.7K 5% 1/4W
IC701	8-752-069-56	IC CXA1782BQ		R213	1-247-843-11	CARBON	3.3K 5% 1/4W
IC702	8-752-372-94	IC CXD2507AQ		R214	1-249-415-11	CARBON	680 5% 1/4W
				R249	1-249-429-11	CARBON	10K 5% 1/4W
IC703	8-759-453-99	IC BA6198S		R291	1-247-807-31	CARBON	100 5% 1/4W
IC704	8-759-426-44	IC SM5877AM		R292	1-249-425-11	CARBON	4.7K 5% 1/4W
IC801	8-752-874-88	IC CXP5086H-684Q		R294	1-249-417-11	CARBON	1K 5% 1/4W
< JACK >				R304	1-247-903-00	CARBON	1M 5% 1/4W
J301	1-566-891-11	JACK (○)		R305	1-249-407-11	CARBON	150 5% 1/4W
< COIL >				R306	1-249-429-11	CARBON	10K 5% 1/4W
L1	1-409-915-11	COIL, AIR-CORE		R307	1-249-429-11	CARBON	10K 5% 1/4W
L2	1-411-387-11	COIL, AIR-CORE		R308	1-249-429-11	CARBON	10K 5% 1/4W
L3	1-501-841-11	ANTENNA, FERRITE-ROD (MW)		R314	1-249-399-11	CARBON	33 5% 1/4W
L4	1-406-040-00	COIL (OSC)		R341	1-249-393-11	CARBON	10 5% 1/4W
< TRANSISTOR >				R342	1-249-435-11	CARBON	33K 5% 1/4W
Q1	8-729-921-65	TRANSISTOR DTC143ES		R351	1-249-429-11	CARBON	10K 5% 1/4W
Q151	8-729-900-74	TRANSISTOR DTC143TS		R391	1-249-441-11	CARBON	100K 5% 1/4W
Q251	8-729-900-74	TRANSISTOR DTC143TS		R392	1-249-417-11	CARBON	1K 5% 1/4W
Q340	8-729-281-53	TRANSISTOR 2SC1815-GR		R393	1-247-903-00	CARBON	1M 5% 1/4W
Q701	8-729-037-02	TRANSISTOR KTA1266Y-AT		R619	1-249-429-11	CARBON	10K 5% 1/4W
Q703	8-729-036-80	TRANSISTOR KRC110M-AT		R620	1-249-429-11	CARBON	10K 5% 1/4W
Q801	8-729-904-36	TRANSISTOR DTC114YS		R623	1-249-429-11	CARBON	10K 5% 1/4W
Q951	8-729-021-82	TRANSISTOR 2SD2396K		R624	1-249-429-11	CARBON	10K 5% 1/4W
Q952	8-729-801-84	TRANSISTOR 2SB1013-4		R625	1-249-429-11	CARBON	10K 5% 1/4W
< RESISTOR >				R700	1-249-429-11	CARBON	10K 5% 1/4W
R1	1-247-807-31	CARBON	100 5% 1/4W	R701	1-249-440-11	CARBON	82K 5% 1/4W
R2	1-249-421-11	CARBON	2.2K 5% 1/4W	R702	1-247-896-11	CARBON	510K 5% 1/4W
R3	1-249-441-11	CARBON	100K 5% 1/4W	R703	1-249-441-11	CARBON	100K 5% 1/4W
R4	1-247-843-11	CARBON	3.3K 5% 1/4W	R704	1-247-883-00	CARBON	150K 5% 1/4W
R5	1-249-411-11	CARBON	330 5% 1/4W	R705	1-249-437-11	CARBON	47K 5% 1/4W
R6	1-247-807-31	CARBON	100 5% 1/4W	R706	1-247-876-11	CARBON	75K 5% 1/4W
R7	1-249-427-11	CARBON	6.8K 5% 1/4W	R707	1-249-432-11	CARBON	18K 5% 1/4W
R8	1-249-427-11	CARBON	6 8K 5% 1/4W	R708	1-247-883-00	CARBON	150K 5% 1/4W
R9	1-249-429-11	CARBON	10K 5% 1/4W	R709	1-247-862-11	CARBON	20K 5% 1/4W
R10	1-249-429-11	CARBON	10K 5% 1/4W	R710	1-249-393-11	CARBON	10 5% 1/4W
R11	1-249-425-11	CARBON	4 7K 5% 1/4W	R712	1-247-843-11	CARBON	3 3K 5% 1/4W
R12	1-249-425-11	CARBON	4.7K 5% 1/4W	R714	1-247-883-00	CARBON	150K 5% 1/4W
R13	1-249-421-11	CARBON	2.2K 5% 1/4W	R715	1-249-430-11	CARBON	12K 5% 1/4W
R14	1-249-429-11	CARBON	10K 5% 1/4W	R716	1-249-430-11	CARBON	12K 5% 1/4W
R101	1-249-431-11	CARBON	15K 5% 1/4W	R717	1-249-429-11	CARBON	10K 5% 1/4W
R102	1-249-404-00	CARBON	82 5% 1/4W	R720	1-247-891-00	CARBON	330K 5% 1/4W
R103	1-249-440-11	CARBON	82K 5% 1/4W	R722	1-249-439-11	CARBON	68K 5% 1/4W
R104	1-247-843-11	CARBON	3.3K 5% 1/4W	R723	1-249-440-11	CARBON	82K 5% 1/4W
R105	1-249-417-11	CARBON	1K 5% 1/4W	R725	1-249-437-11	CARBON	47K 5% 1/4W
R111	1-249-425-11	CARBON	4 7K 5% 1/4W	R726	1-249-429-11	CARBON	10K 5% 1/4W
R113	1-247-843-11	CARBON	3.3K 5% 1/4W	R727	1-249-429-11	CARBON	10K 5% 1/4W
R114	1-249-415-11	CARBON	680 5% 1/4W	R730	1-249-435-11	CARBON	33K 5% 1/4W
R149	1-249-429-11	CARBON	10K 5% 1/4W	R731	1-247-863-91	CARBON	22K 5% 1/4W
R191	1-247-807-31	CARBON	100 5% 1/4W	R734	1-249-437-11	CARBON	47K 5% 1/4W
R192	1-249-425-11	CARBON	4.7K 5% 1/4W	R740	1-247-843-11	CARBON	3 3K 5% 1/4W
R194	1-249-417-11	CARBON	1K 5% 1/4W	R741	1-249-417-11	CARBON	1K 5% 1/4W
R201	1-249-431-11	CARBON	15K 5% 1/4W	R742	1-249-429-11	CARBON	10K 5% 1/4W
R202	1-249-404-00	CARBON	82 5% 1/4W	R743	1-247-903-00	CARBON	1M 5% 1/4W
				R744	1-249-441-11	CARBON	100K 5% 1/4W
				R745	1-249-429-11	CARBON	10K 5% 1/4W
				R746	1-249-437-11	CARBON	47K 5% 1/4W

MAIN	M/B SW	MEGA BASS	POWER
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Ref. No.	Part No	Description	Remark	Ref No	Part No	Description	Remark
R748	1-249-417-11	CARBON	1K 5% 1/4W	< TRANSFORMER >			
R749	1-249-417-11	CARBON	1K 5% 1/4W	T1	1-409-944-11	COIL (DET)	
R750	1-249-429-11	CARBON	10K 5% 1/4W	T2	1-416-155-11	COIL (455KHZ IFT)	
R751	1-249-417-11	CARBON	1K 5% 1/4W	T301	1-433-268-00	BIAS OSC TRANS	
R752	1-249-417-11	CARBON	1K 5% 1/4W	< VIBRATOR >			
R753	1-249-417-11	CARBON	1K 5% 1/4W	X701	1-760-793-11	VIBRATOR, CERAMIC (16.9344MHz)	
R754	1-249-417-11	CARBON	1K 5% 1/4W	*****			
R755	1-249-417-11	CARBON	1K 5% 1/4W	*	1-665-564-11	M/B SW BOARD	
R756	1-249-440-11	CARBON	82K 5% 1/4W	*****			
R757	1-249-439-11	CARBON	68K 5% 1/4W	< SWITCH >			
R758	1-249-439-11	CARBON	68K 5% 1/4W	S355	1-762-950-11	SWITCH, PUSH (2 KEY) (MEGA BASS)	
R759	1-249-439-11	CARBON	68K 5% 1/4W	*****			
R760	1-249-417-11	CARBON	1K 5% 1/4W	*	1-665-563-11	MEGA BASS BOARD	
R761	1-249-417-11	CARBON	1K 5% 1/4W	*****			
R762	1-249-417-11	CARBON	1K 5% 1/4W	< CAPACITOR >			
R764	1-249-417-11	CARBON	1K 5% 1/4W	C155	1-136-165-00	FILM	0.1uF 5% 50V
R765	1-249-417-11	CARBON	1K 5% 1/4W	C156	1-136-165-00	FILM	0.1uF 5% 50V
R766	1-249-417-11	CARBON	1K 5% 1/4W	C255	1-136-165-00	FILM	0.1uF 5% 50V
R767	1-249-429-11	CARBON	10K 5% 1/4W	C256	1-136-165-00	FILM	0.1uF 5% 50V
R768	1-249-429-11	CARBON	10K 5% 1/4W	C352	1-124-907-11	ELECT	10uF 20% 50V
R774	1-249-417-11	CARBON	1K 5% 1/4W	< CONNECTOR >			
R775	1-249-417-11	CARBON	1K 5% 1/4W	* CN308	1-691-573-11	PIN, CONNECTOR (PC BOARD) 2P	
R776	1-249-417-11	CARBON	1K 5% 1/4W	< DIODE >			
R780	1-249-417-11	CARBON	1K 5% 1/4W	D352	8-719-991-33	DIODE 1SS133T-77	
R792	1-249-429-11	CARBON	10K 5% 1/4W	< TRANSISTOR >			
R793	1-249-417-11	CARBON	1K 5% 1/4W	Q155	8-729-119-78	TRANSISTOR 2SC403SP-51	
R795	1-249-429-11	CARBON	10K 5% 1/4W	Q255	8-729-119-78	TRANSISTOR 2SC403SP-51	
R801	1-249-437-11	CARBON	47K 5% 1/4W	< RESISTOR >			
R802	1-249-437-11	CARBON	47K 5% 1/4W	R155	1-249-425-11	CARBON	4 7K 5% 1/4W
R803	1-249-437-11	CARBON	47K 5% 1/4W	R157	1-249-417-11	CARBON	1K 5% 1/4W
R806	1-249-437-11	CARBON	47K 5% 1/4W	R255	1-249-425-11	CARBON	4 7K 5% 1/4W
R807	1-249-417-11	CARBON	1K 5% 1/4W	R257	1-249-417-11	CARBON	1K 5% 1/4W
R808	1-249-417-11	CARBON	1K 5% 1/4W	R352	1-249-437-11	CARBON	47K 5% 1/4W
R809	1-249-429-11	CARBON	10K 5% 1/4W	R353	1-249-417-11	CARBON	1K 5% 1/4W
△R901	1-219-123-11	FUSIBLE	0.47 5% 1/4W F	*****			
△R902	1-219-123-11	FUSIBLE	0.47 5% 1/4W F	*	1-665-559-11	POWER BOARD	
△R903	1-219-123-11	FUSIBLE	0.47 5% 1/4W F	*****			
R911	1-247-828-11	CARBON	750 5% 1/4W	1-533-217-31	HOLDER, FUSE		
R912	1-247-816-11	CARBON	240 5% 1/4W	< CAPACITOR >			
R951	1-247-815-91	CARBON	220 5% 1/4W	C901	1-161-055-00	CERAMIC	0.022uF 10% 50V
< VARIABLE RESISTOR >				C902	1-161-055-00	CERAMIC	0.022uF 10% 50V
RV1	1-228-995-00	RES, ADJ, CARBON 22K (VCO)		C903	1-161-055-00	CERAMIC	0.022uF 10% 50V
RV351	1-225-438-11	RES, VAR, CARBON 20K/20K (TONE)		C904	1-161-055-00	CERAMIC	0.022uF 10% 50V
RV352	1-225-439-11	RES, VAR, CARBON 20K/20K (VOL)		C905	1-136-165-00	FILM	0.1uF 5% 50V
RV701	1-228-995-00	RES, ADJ, CARBON 22K (FOCUS BIAS)		< SWITCH >			
RV702	1-228-995-00	RES, ADJ, CARBON 22K (FOCUS GAIN)		S351	1-571-345-11	SWITCH, LEVER SLIDE (FUNCTION)	
RV703	1-228-991-00	RES, ADJ, CERMET 2 2K (E-F BALANCE)					
RV704	1-228-995-00	RES, ADJ, CARBON 22K (TRACKING GAIN)					

The components identified by mark △ or dotted line with mark △ are critical for safety Replace only with part number specified.	Les composants identifiés par une marque △ sont critiques pour la sécurité Ne les remplacer que par une pièce portant le numéro spécifié
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POWER**REC SW****SW**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C906	1-136-165-00	FILM 0.1uF 5%	50V			MISCELLANEOUS *****	
		< DIODE >					
D901	8-719-052-88	DIODE 1N4002		56	1-452-899-11	MAGNET	
D902	8-719-052-88	DIODE 1N4002		73	1-777-955-11	WIRE, PARALLEL (16 CORE)	
D903	8-719-052-88	DIODE 1N4002		107	1-533-217-31	HOLDER FUSE	
D904	8-719-052-88	DIODE 1N4002		△ 254	8-820-018-02	OPTICAL PICK-UP KSS-213C	
		< FUSE >		ANT1	1-501-918-11	ANTENNA, TELESCOPIC	
△ F902	1-533-618-11	FUSE, GLASS CYLINDRICAL (3 15A/250V)		△ F902	1-533-618-11	FUSE, GLASS CYLINDRICAL (3.15A/250V)	
*****				HE901	1-543-876-11	HEAD (ERASE)	
*	1-665-562-11	REC SW BOARD *****		HRP901	1-500-364-11	HEAD, MAGNETIC (RECORD/PLAYBACK)	
		< SWITCH >		M701	X-2625-769-1	GEAR ASSY (MB)(RP), MOTOR (SLED)	
S301	1-762-565-11	SWITCH, SLIDE (REC/PB)		M901	A-3304-621-A	MOTOR ASSY	

*	1-665-554-11	SW BOARD *****		S871	1-692-960-11	SWITCH, PUSH (1 KEY) (OPEN/CLOSE)	
		< LIQUID CRYSTAL DISPLAY >		S901	1-762-679-11	SWITCH, LEAF (MOTOR ON/OFF)	
LCD801	1-801-639-11	LCD		SP901	1-505-531-11	SPEAKER (10CM) (L-CH)	
		< SWITCH >		SP902	1-505-531-11	SPEAKER (10CM) (R-CH)	
S801	1-762-798-11	SWITCH, KEYBOARD (▶)		△ T901	1-429-101-11	TRANSFORMER, POWER	
S802	1-762-798-11	SWITCH, KEYBOARD (■)		*****			
S803	1-762-798-11	SWITCH, KEYBOARD (◀◀)				ACCESSORIES & PACKING MATERIALS *****	
S804	1-762-798-11	SWITCH, KEYBOARD (▶▶)		△	1-590-147-11	CORD, POWER	
S851	1-762-798-11	SWITCH, KEYBOARD (PLAY MODE)			3-859-117-11	MANUAL, INSTRUCTION (ENGLISH)	
					3-859-117-21	MANUAL, INSTRUCTION (FRENCH) (CND)	
S852	1-762-798-11	SWITCH, KEYBOARD (DISPLAY ENTER)		*****			
*****						***** HARDWARE LIST *****	
				#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
				#2	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	
				#3	7-682-548-04	SCREW +B 3X8	
				#5	7-621-255-15	SCREW +P 2X3	
				#6	7-685-648-79	SCREW +BVTP 3X12 TYPE2 N-S	

The components identified by mark △ or dotted line with mark △ are critical for safety Replace only with part number specified	Les composants identifiés par une marque △ sont critiques pour la sécurité Ne les remplacer que par une pièce portant le numéro spécifié
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CFD-V20

SONY®

SERVICE MANUAL

*US Model
Canadian Model*

SUPPLEMENT - 1

File this Supplement with the Service Manual.

Subject :

- CHANGE OF BOARDS
- EXPLODED VIEWS
- ELECTRICAL PARTS LIST

(SPM-97033)

● CHANGE OF BOARDS

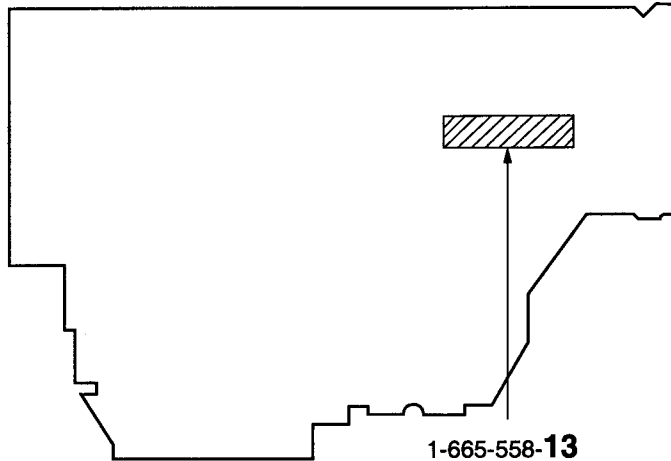
The main board, SW board, power board, AC inlet board, mega bass board, REC SW board, M/B SW board and BATT board have been changed.

Printed wiring boards and schematic diagram of new type, and changed parts list are described in this Supplement-1.

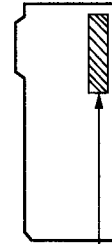
Refer to original service manual (9-923-135-11) previously issued for the other information.

NEW TYPE IDENTIFICATION

– MAIN BOARD (Component side) –

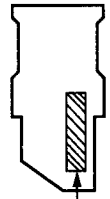


– POWER BOARD –
(Component side)



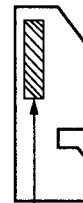
1-665-559-13

– BATT BOARD –
(Component side)



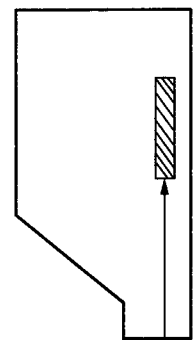
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– REC SW BOARD –
(Component side)



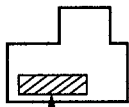
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– AC INLET BOARD –
(Component side)



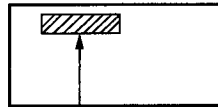
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– M/B SW BOARD –
(Component side)



1-665-564-13

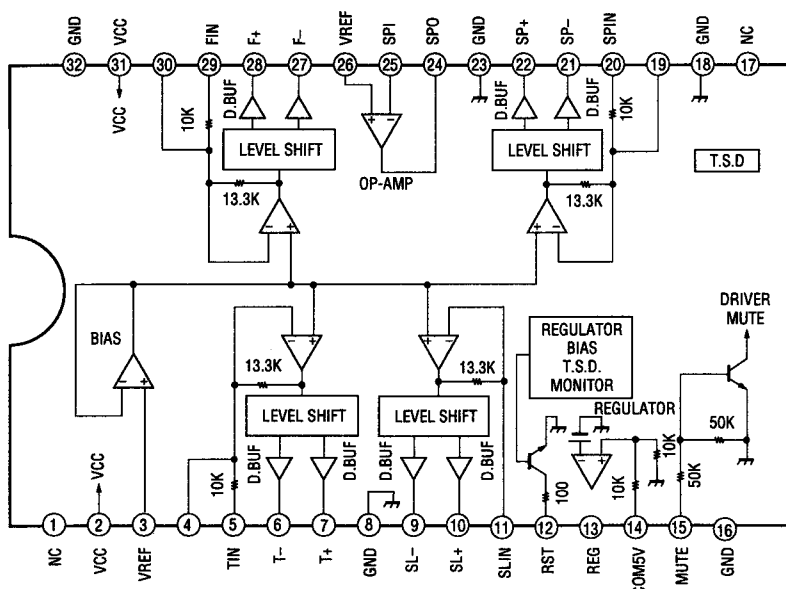
– MEGA BASS BOARD –
(Component side)



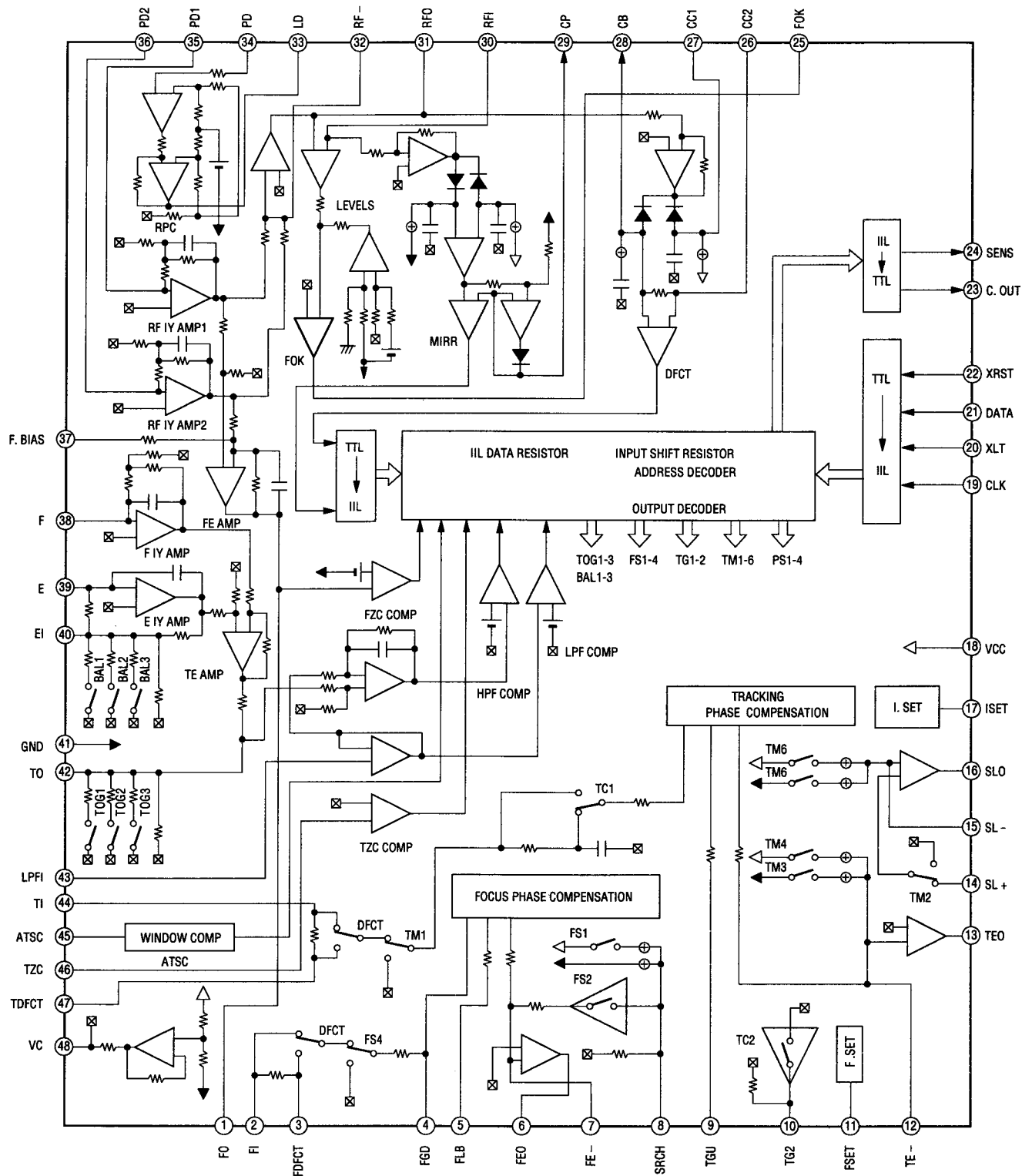
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● IC BLOCK DIAGRAMS – CD SECTION –

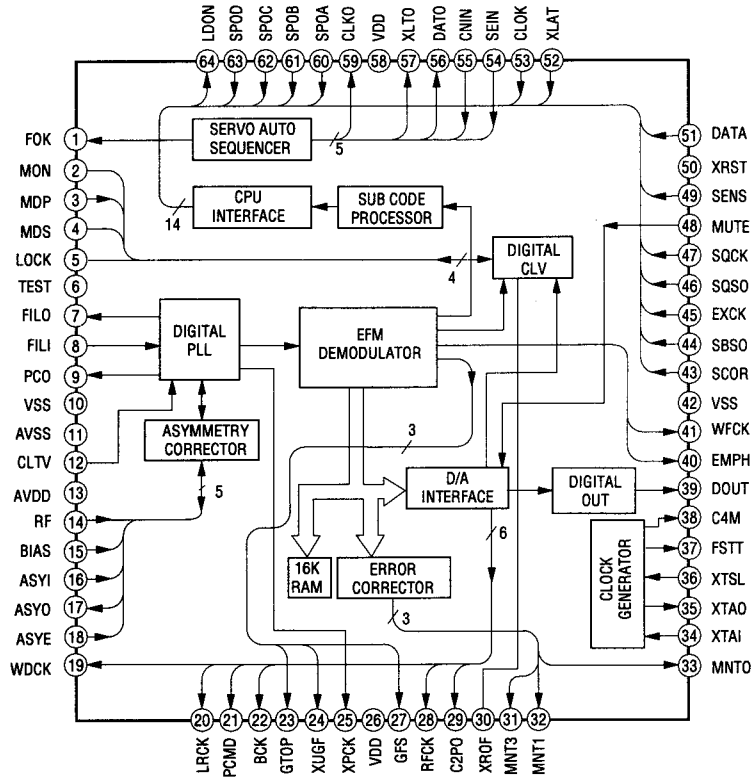
IC703 BA6198S



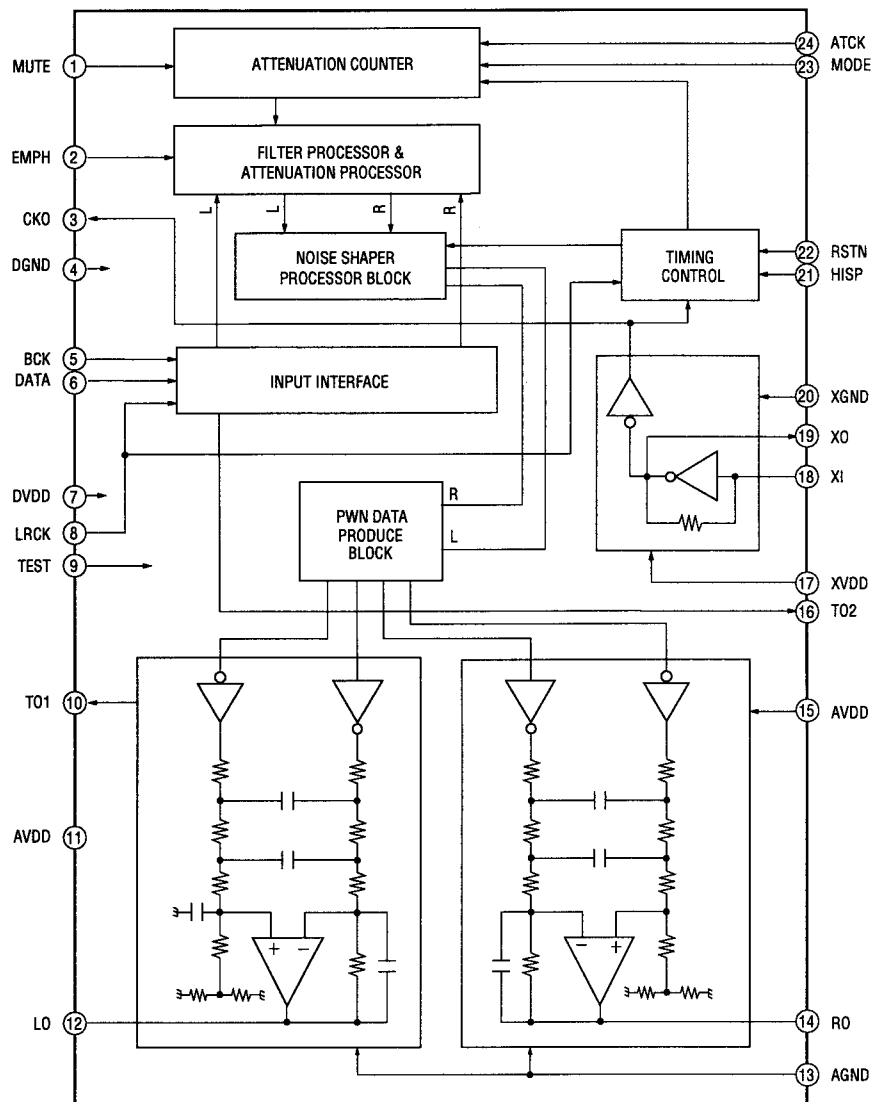
● IC BLOCK DIAGRAMS -CD SECTION -
IC701 CXA1782BQ



IC702 CXD2507AQ



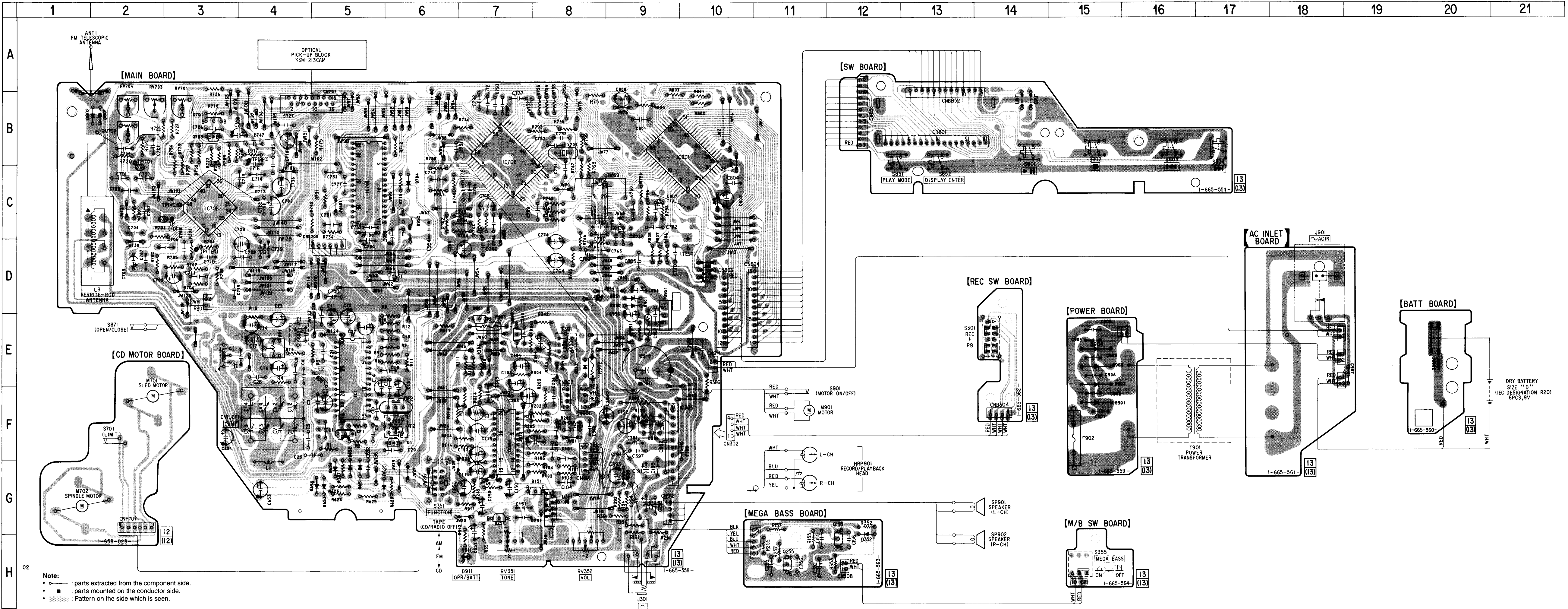
IC704 SM5877AM

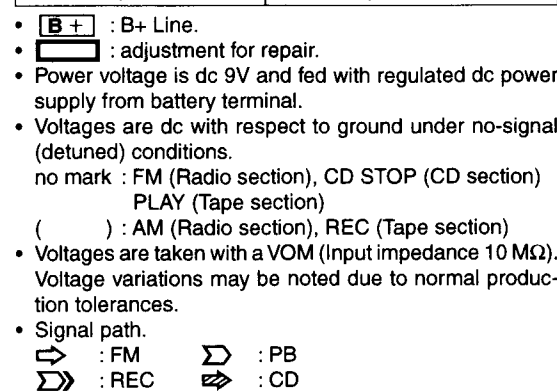


● SEMICONDUCTOR LOCATION

Ref. No.	Location
D352	G-12
D391	G-9
D620	G-5
D651	G-5
D652	G-5
D653	G-5
D655	G-5
D656	G-5
D704	C-6
D801	B-2
D802	B-2
D901	F-15
D902	E-15
D903	E-15
D904	E-15
D911	H-7
D912	E-8
D950	D-9
D951	D-9
IC1	E-5
IC301	F-7
IC305	F-9
IC701	C-3
IC702	B-7
IC703	C-5
IC704	C-8
IC801	B-9
Q1	F-6
Q151	G-8
Q155	H-12
Q251	G-7
Q255	H-11
Q340	E-7
Q701	B-3
Q703	B-3
Q801	E-7
Q951	D-9
Q952	C-6

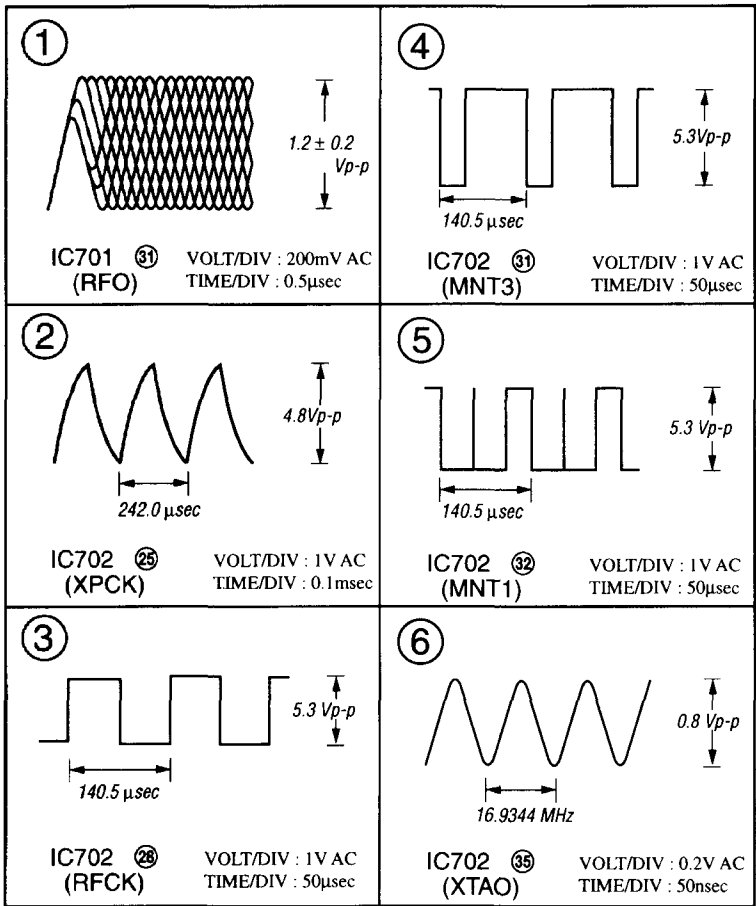
● PRINTED WIRING BOARDS





CFD-V20

● WAVEFORMS

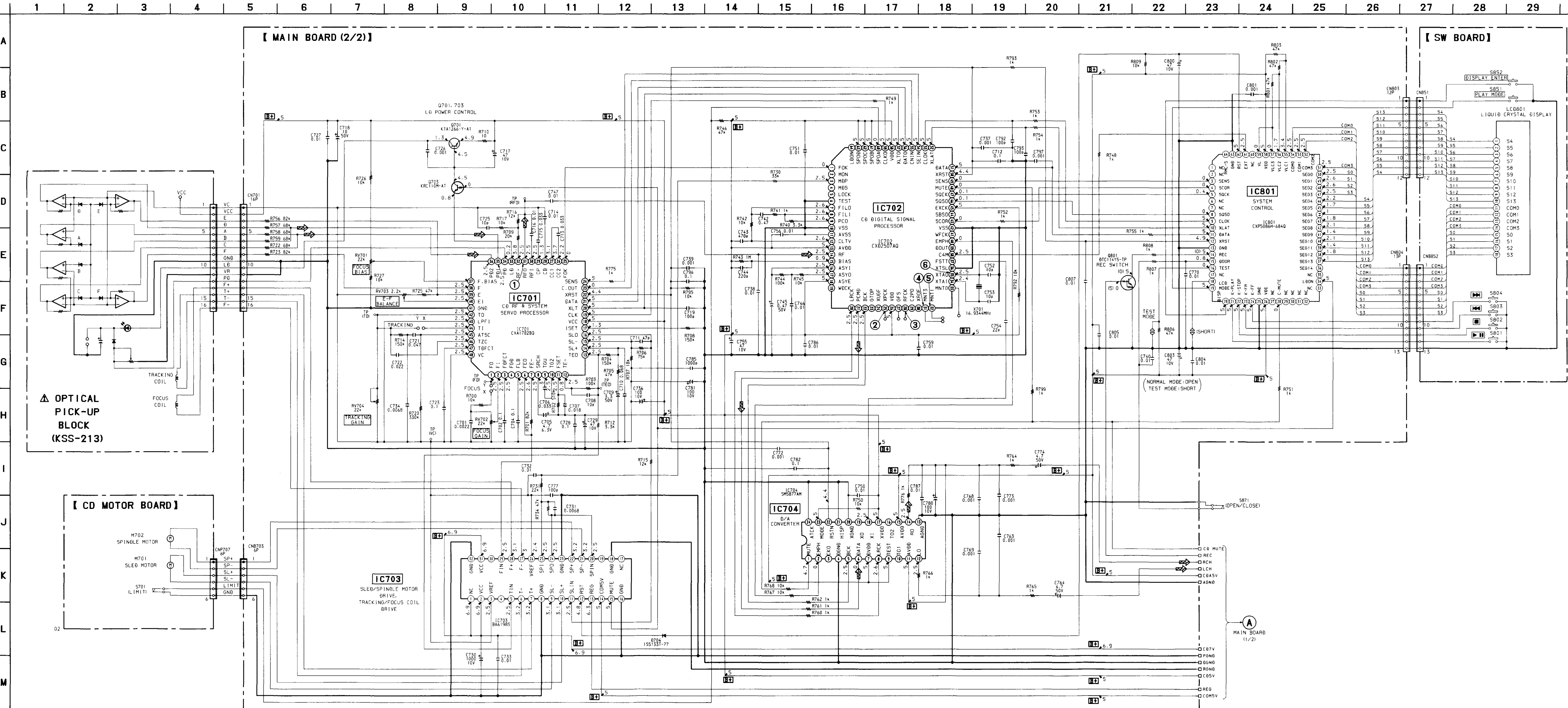


Note:

- All capacitors are in μF unless otherwise noted. pF: μμF
50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.	Note: Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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- **[B +]** : B+ Line.
- **[]** : adjustment for repair.
- Power voltage is dc 9V and fed with regulated dc power supply from battery terminal.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark : FM (Radio section), CD STOP (CD section)
PLAY (Tape section)
() : AM (Radio section), REC (Tape section)
- Voltages are taken with a VOM (Input impedance 10 MΩ).
Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
⇒ : CD



● **EXPLODED VIEWS** (Service Manual See page 33 to 38)

NOTE :

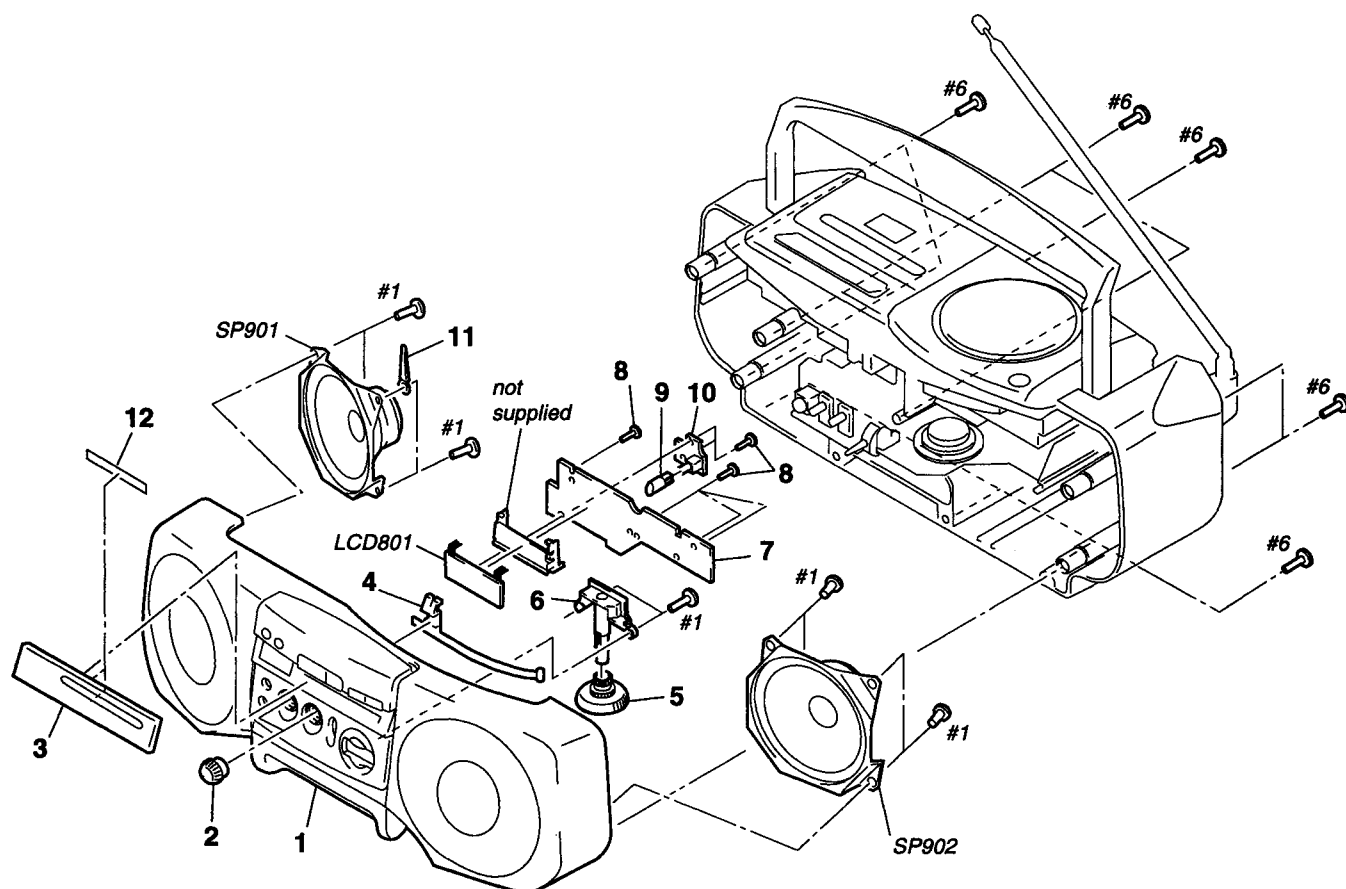
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Color indication of Appearance Parts
Example :
KNOB, BALANCE (WHITE) ... (RED)

Parts color Cabinet's color
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
CND : Canadian

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

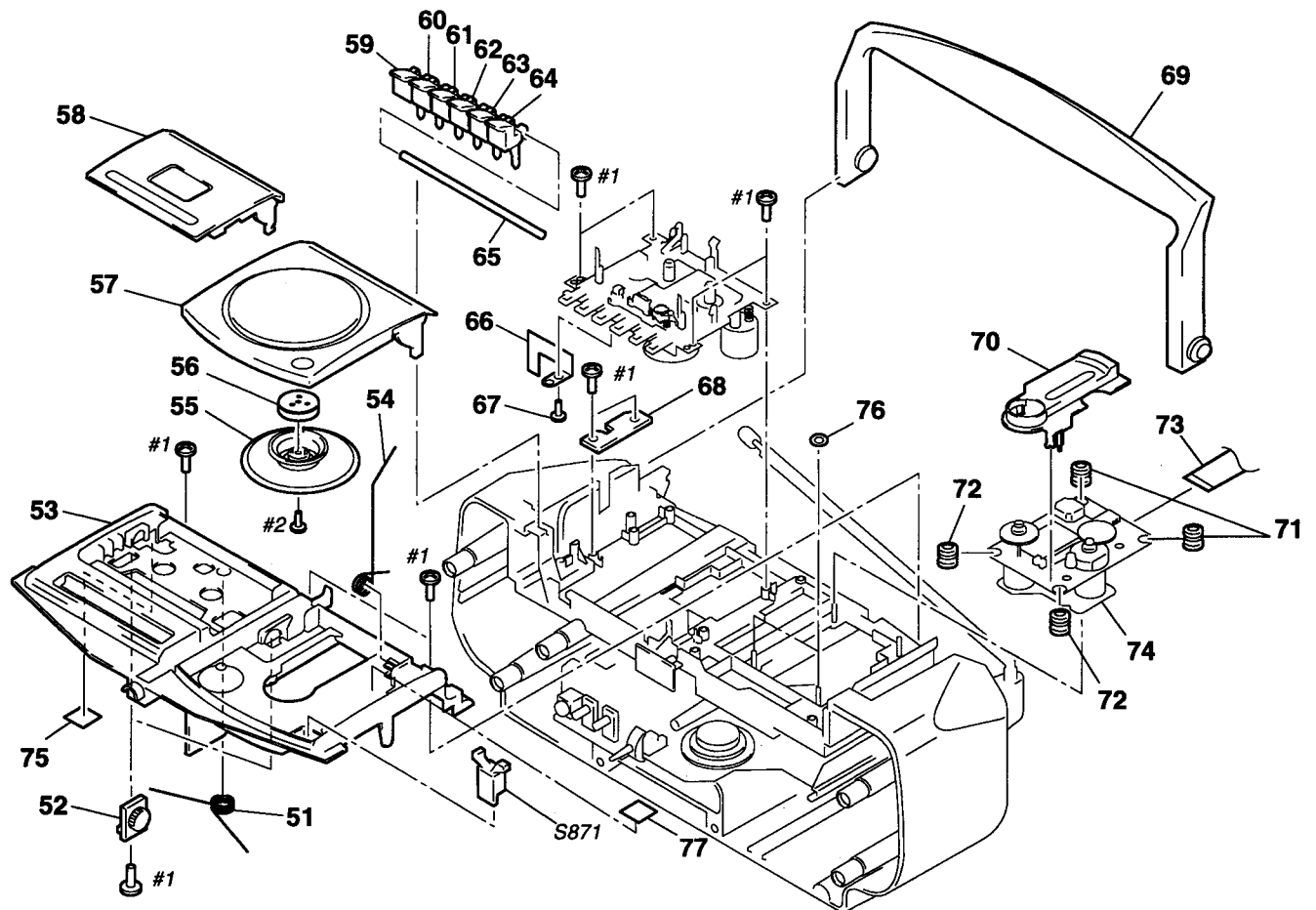
Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

8-1. FRONT CABINET SECTION



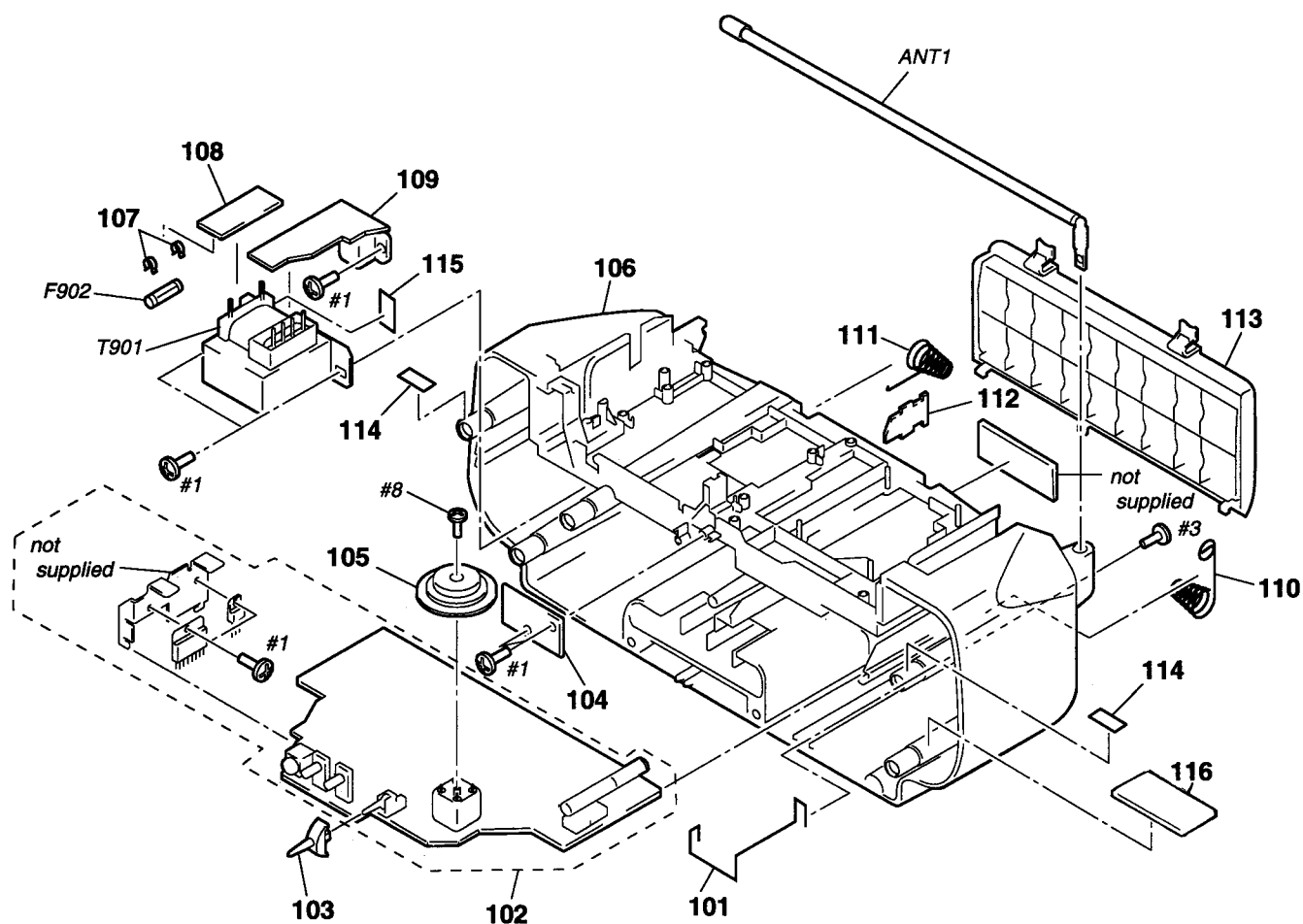
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-3373-390-1	CABINET (FRONT) SUB ASSY...-(BLACK) (US)		* 7	1-665-554-13	SW BOARD	
1	X-3373-934-1	CABINET (FRONT) SUB ASSY...-(WHITE) (US)		8	4-951-620-01	SCREW (2.6X8), +BVTP	
1	X-3373-936-1	CABINET (FRONT) SUB ASSY...-(BLACK)		9	3-009-216-01	KNOB (MEGA BASS)	
		(CND)		* 10	1-665-564-13	M/B SW BOARD	
2	3-009-193-01	KNOB (VOL)...-(BLACK)		11	3-703-397-11	STOPPER, WIRING	
2	3-009-193-11	KNOB (VOL)...-(WHITE) (US)					
				12	3-014-933-01	SHEET (B), ADHESIVE	
3	3-012-689-01	WINDOW, TU...-(BLACK)		LCD801	1-801-639-11	LCD	
3	3-012-689-51	WINDOW, TU...-(WHITE) (US)		SP901	1-505-531-11	SPEAKER (10cm) (L-CH)	
4	3-009-191-01	POINTER		SP902	1-505-531-11	SPEAKER (10cm) (R-CH)	
5	3-009-190-01	KNOB (TU)					
* 6	3-009-189-01	CHASSIS, TU					

8-2. UPPER CABINET SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	3-009-208-01	SPRING, CASSETTE UP		63	3-009-200-11	BUTTON (STOP)...(WHITE) (US)	
52	3-922-112-11	DAMPER		64	3-009-195-01	BUTTON (PAUSE)...(BLACK)	
53	3-009-186-01	CABINET (UPPER)...(BLACK)		64	3-009-195-11	BUTTON (PAUSE)...(WHITE) (US)	
53	3-009-186-21	CABINET (UPPER)...(WHITE) (US)		* 65	3-009-206-01	SHAFT (MD)	
54	3-009-209-01	SPRING, CD UP		66	3-009-214-01	SPRING, REC	
55	3-923-498-01	PLATE, CHUCK		67	4-951-620-01	SCREW (2.6X8), +BVTP	
56	1-452-899-11	MAGNET		* 68	1-665-562-13	REC SW BOARD	
57	3-009-187-01	LID, CD...(BLACK)		69	3-009-201-01	HANDLE...(BLACK)	
57	3-009-187-21	LID, CD...(WHITE) (US)		69	3-009-201-11	HANDLE...(WHITE) (US)	
58	X-3373-389-1	HOLDER SUB ASSY, CASSETTE...(BLACK)		70	3-923-736-01	COVER, CD	
58	X-3373-974-1	HOLDER SUB ASSY, CASSETTE...(WHITE) (US)		71	3-910-095-01	RUBBER, VIBRATION PROOF (RED)	
59	3-009-196-01	BUTTON (REC)...(BLACK)		72	3-910-095-11	RUBBER, VIBRATION PROOF (GREEN)	
59	3-009-196-11	BUTTON (REC)...(WHITE) (US)		73	1-777-955-11	WIRE, PARALLEL (16 CORE)	
60	3-009-199-01	BUTTON (PLAY)...(BLACK)		* 74	1-639-678-12	CD MOTOR BOARD	
60	3-009-199-11	BUTTON (PLAY)...(WHITE) (US)		75	3-923-151-01	CUSHION, RUBBER	
61	3-009-198-01	BUTTON (REW)...(BLACK)		76	7-623-957-11	SPACER (PICK)	
61	3-009-198-11	BUTTON (REW)...(WHITE) (US)		77	3-015-646-01	CUSHION (CD)...(BLACK)	
62	3-009-197-01	BUTTON (FF)...(BLACK)		77	3-015-646-11	CUSHION (CD)...(WHITE) (US)	
62	3-009-197-11	BUTTON (FF)...(WHITE) (US)		S871	1-692-960-11	SWITCH, PUSH (1 KEY) (OPEN/CLOSE)	
63	3-009-200-01	BUTTON (STOP)...(BLACK)					

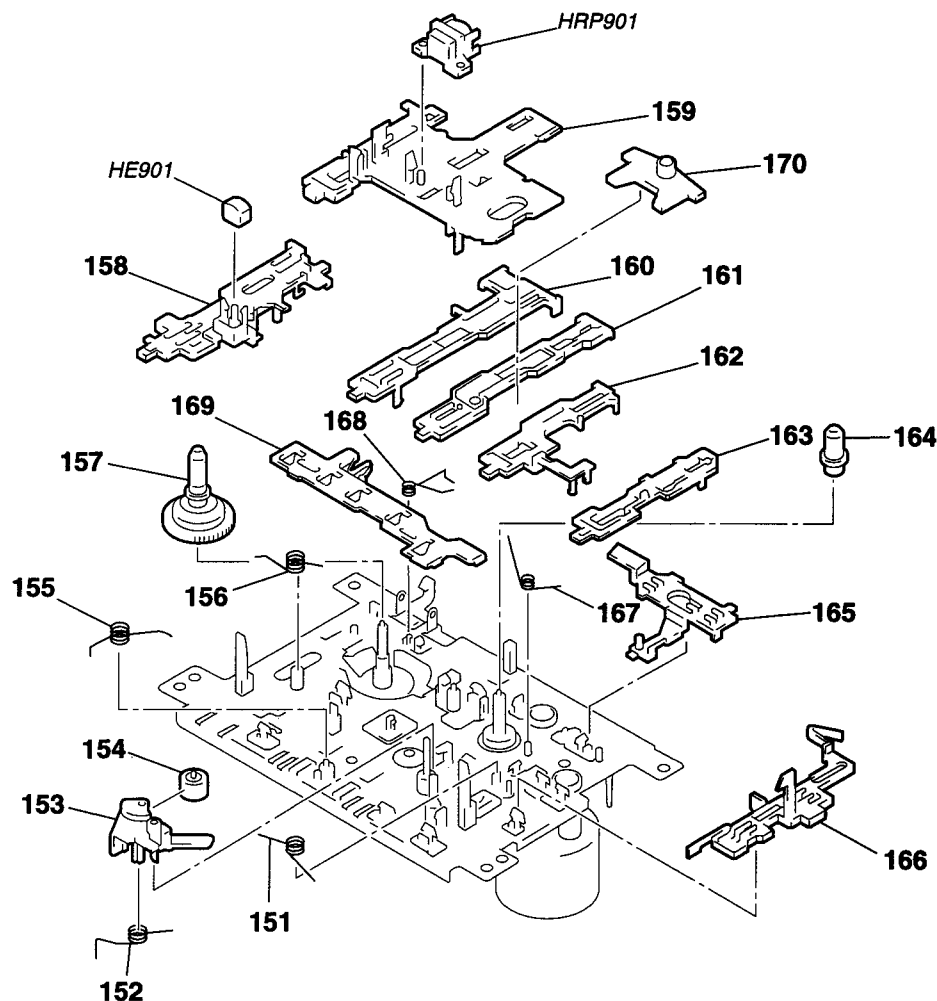
8-3. REAR CABINET SECTION



The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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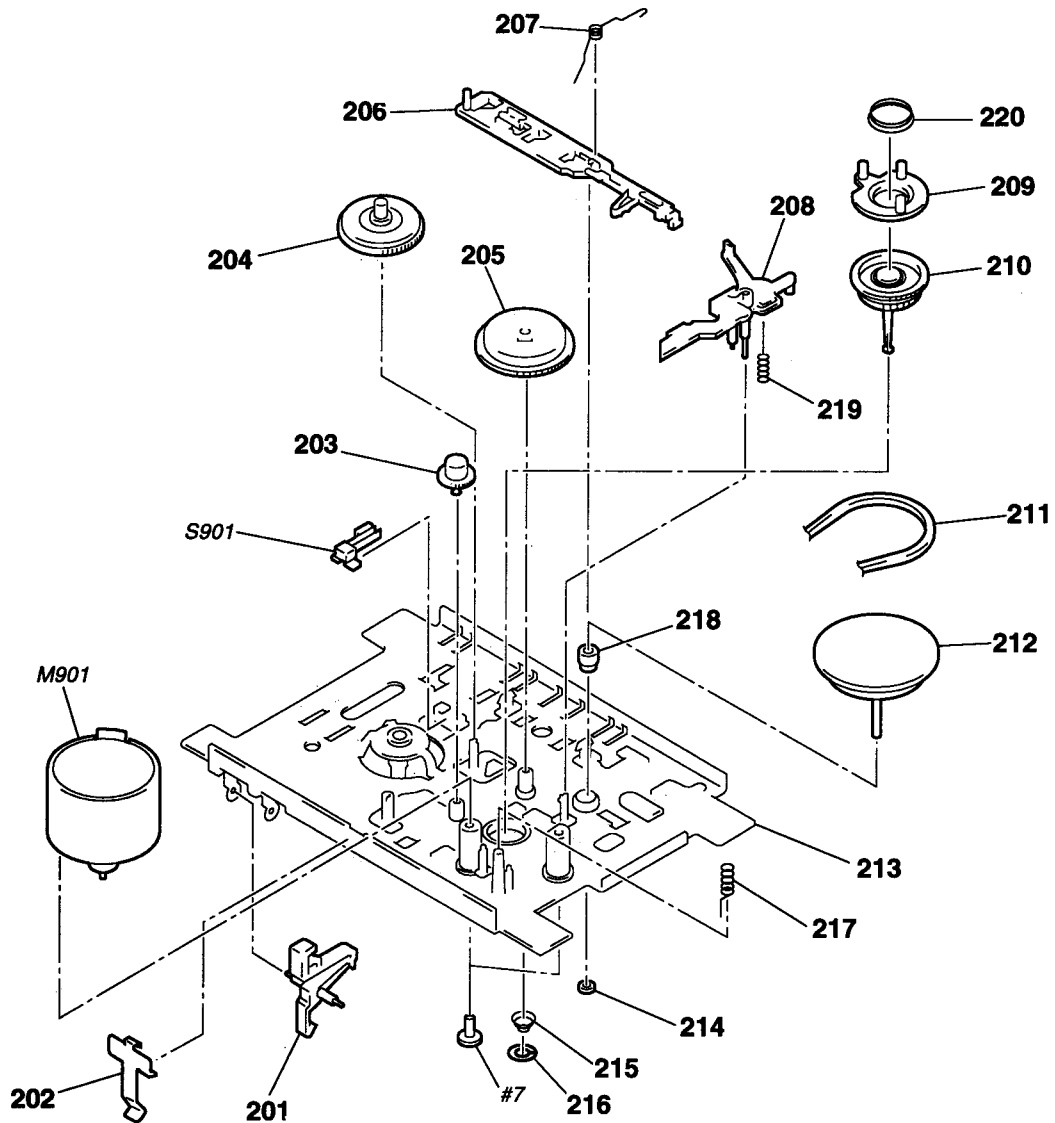
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 101	3-009-215-01	TERMINAL (ANALOG), ANTENNA		110	3-009-210-01	SPRING (+ -)	
* 102	A-3306-655-A	MAIN BOARD, COMPLETE		111	3-009-211-01	SPRING (-)	
103	3-009-194-01	KNOB (FUN) (BLACK)		* 112	1-665-560-13	BATT BOARD	
103	3-009-194-11	KNOB (FUN) (WHITE) (US)		113	3-009-202-01	LID, BATTERY CASE (BLACK)	
* 104	1-665-563-13	MEGA BASS BOARD		113	3-009-202-11	LID, BATTERY CASE (WHITE) (US)	
105	3-009-192-01	GEAR, TUNING CAPACITOR		* 114	3-378-109-01	CUSHION, SARANET	
106	3-013-804-01	CABINET (REAR) (BLACK) (US)		115	3-846-312-01	SPACER	
106	3-013-804-11	CABINET (REAR) (WHITE) (US)		116	3-831-441-99	CUSHION, SPEAKER	
106	3-013-804-21	CABINET (REAR) (BLACK) (CND)					
107	1-533-217-31	HOLDER FUSE		ANT1	1-501-883-11	ANTENNA, TELESCOPIC	
* 108	1-665-559-13	POWER BOARD		Δ F902	1-576-107-11	FUSE, GLASS CYLINDRICAL (3.15A/250V)	
* 109	1-665-561-13	AC INLET BOARD		Δ T901	1-431-230-11	TRANSFORMER, POWER (US)	
				Δ T901	1-431-230-21	TRANSFORMER, POWER (CND)	

8-4. MECHANISM DECK SECTION (1) **(MF-V10-117)**



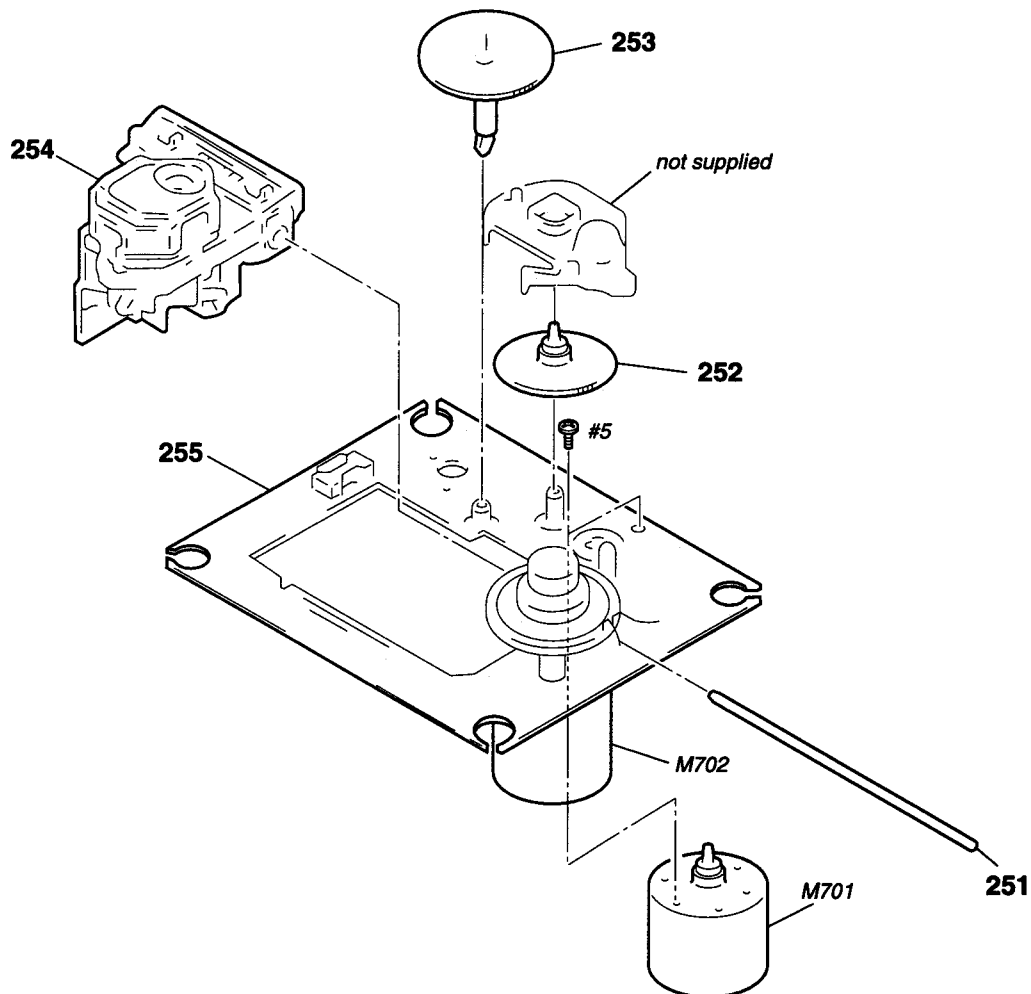
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	3-933-010-01	SPRING (S/P), TORSION		* 162	3-008-587-01	SLIDER	
152	3-933-025-01	SPRING (P), TORSION		* 163	3-008-591-01	SLIDER (PAUSE)	
153	3-933-026-01	LEVER (P)		164	3-933-004-01	CLAW, REEL	
154	3-933-024-01	ROLLER, PINCH		* 165	3-933-021-01	SLIDER (FRP)	
155	3-933-019-01	SPRING (F/R), TORSION		166	3-933-006-01	SLIDER (EJECT)	
156	3-933-028-01	SPRING (FWD), TORSION		167	3-934-833-01	SPRING (FRP)	
157	3-933-016-01	GEAR (S REEL)		168	3-934-834-01	SPRING (BT)	
158	3-008-590-01	SLIDER (REC)		* 169	3-933-007-01	PLATE, LOCK	
159	3-008-592-12	BASE (H), HEAD		* 170	3-012-114-01	LEVER (FR)	
* 160	3-008-588-01	SLIDER (REW)		HE901	1-543-876-11	HEAD (ERASE)	
* 161	3-008-589-01	SLIDER (FF)		HRP901	1-500-364-11	HEAD, MAGNETIC (RECORD/ PLAYBACK)	

8-5. MECHANISM DECK SECTION (2)
(MF-V10-117)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	3-933-029-01	LEVER, ERASING PREVENTION		212	X-3372-924-1	FLYWHEEL ASSY	
202	3-933-182-01	SPRING, CASSETTE		213	3-932-993-01	CHASSIS, OUTSERT	
203	3-932-995-01	GEAR (MID)		214	3-343-358-01	RING, RETAINING	
204	X-3371-667-1	CLUTCH ASSY		215	3-933-005-01	SPRING (CAM), COMPRESSION	
205	3-932-997-01	GEAR (CAM)					
* 206	3-932-999-01	SLIDER (SW)		216	3-016-349-01	WASHER	
207	3-932-998-01	SPRING (GROUND), TORSION		217	3-937-760-01	SPRING (GROUND), COMPRESSION	
208	3-009-648-01	LEVER (S.OFF)		218	3-934-336-01	BEARING	
209	3-936-438-01	LEVER (K)		219	3-939-383-02	SPRING, COMPRESSION	
210	X-3373-572-1	REEL ASSY (N), T		220	3-009-650-02	SPRING (K), COMPRESSION	
211	3-933-020-01	BELT					
				M901	A-3304-619-A	MOTOR ASSY	
				S901	1-762-679-11	SWITCH, LEAF (MOTOR ON/OFF)	

8-6. OPTICAL PICK-UP SECTION (KSM-213CAM)



The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	2-626-908-01	SHAFT, SLED		255	X-2625-770-1	CHASSIS ASSY (MB) (RP), MOTOR (INCLUDING M702) (SPINDLE)	
252	2-627-003-02	GEAR (B)(RP)		M701	X-2625-769-1	GEAR ASSY (MB) (RP), MOTOR (SLED)	
253	2-626-907-01	GEAR (A) (S)					
Δ 254	8-848-483-05	OPTICAL PICK-UP KSS-213C					

AC INLET

BATT

CD MOTOR

MAIN

● ELECTRICAL PARTS LIST (Service Manual See page 39 to 42)

NOTE :

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL : Metal-film resistor
METAL OXIDE : Metal oxide-film resistor
F : nonflammable
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- SEMICONDUCTORS
In each case, u : μ , for example :
uA..... : μ A....., uPA..... : μ PA.....
uPB..... : μ PB....., uPC..... : μ PC.....
uPD..... : μ PD.....
- CAPACITORS
uF : μ F
- COILS
uH : μ H
- Abbreviation
CND : Canadian

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-665-561-13	AC INLET BOARD *****		C12	1-124-903-11	ELECT 1uF 20% 50V	
		< CAPACITOR >		C13	1-104-664-11	ELECT 47uF 20% 10V	
C907	1-162-294-31	CERAMIC 0.001uF 10% 50V		C14	1-104-664-11	ELECT 47uF 20% 10V	
		< JACK >		C15	1-162-306-11	CERAMIC 0.01uF 20% 16V	
Δ J901	1-540-009-11	INLET, AC ($\sim$ AC IN)		C16	1-126-961-11	ELECT 2.2uF 20% 50V	
*****				C17	1-124-443-00	ELECT 100uF 20% 10V	
*	1-665-560-13	BATT BOARD *****		C18	1-162-842-11	CERAMIC 0.018uF 10% 16V	
*****				C19	1-162-842-11	CERAMIC 0.018uF 10% 16V	
*	1-639-678-12	CD MOTOR BOARD *****		C20	1-162-306-11	CERAMIC 0.01uF 20% 16V	
		< CONNECTOR >		C21	1-162-203-31	CERAMIC 15PF 5% 50V	
CNP707	1-564-722-11	PIN, CONNECTOR (SMALL TYPE) 6P		C22	1-124-903-11	ELECT 1uF 20% 50V	
		< SWITCH >		C23	1-124-902-00	ELECT 0.47uF 20% 50V	
S701	1-572-085-11	SWITCH, LEAF (LIMIT)		C24	1-126-963-11	ELECT 4.7uF 20% 50V	
*****				C25	1-162-294-31	CERAMIC 0.001uF 10% 50V	
*	A-3306-655-A	MAIN BOARD, COMPLETE *****		C26	1-162-294-31	CERAMIC 0.001uF 10% 50V	
	3-009-192-01	GEAR, TUNING CAPACITOR		C28	1-162-306-11	CERAMIC 0.01uF 20% 16V	
	3-009-194-01	KNOB (FUN)		C101	1-162-301-11	CERAMIC 0.0015uF 20% 16V	
	7-621-770-XX	SCREW +P 2.6X8		C103	1-104-664-11	ELECT 47uF 20% 10V	
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S		C104	1-161-020-11	CERAMIC 0.039uF 10% 25V	
		< CAPACITOR >		C105	1-162-302-11	CERAMIC 0.0022uF 20% 16V	
C1	1-162-215-31	CERAMIC 47PF 5% 50V		C111	1-124-902-00	ELECT 0.47uF 20% 50V	
C2	1-162-306-11	CERAMIC 0.01uF 20% 16V		C113	1-124-903-11	ELECT 1uF 20% 50V	
C3	1-104-664-11	ELECT 47uF 20% 10V		C150	1-126-963-11	ELECT 4.7uF 20% 50V	
C5	1-162-205-31	CERAMIC 18PF 5% 50V		C151	1-136-160-00	FILM 0.039uF 5% 50V	
C6	1-102-721-00	CERAMIC 24PF 5% 50V		C191	1-126-927-11	ELECT 2200uF 20% 10V	
C7	1-102-943-00	CERAMIC 6.0PF +-0.5PF 50V		C192	1-124-903-11	ELECT 1uF 20% 50V	
C8	1-162-193-31	CERAMIC 3.3PF 10% 50V		C193	1-136-153-00	CERAMIC 0.01uF 5% 50V	
C9	1-162-306-11	CERAMIC 0.01uF 20% 16V		C194	1-102-074-00	CERAMIC 0.001uF 10% 50V	
C10	1-162-306-11	CERAMIC 0.01uF 20% 16V		C201	1-162-301-11	CERAMIC 0.0015uF 20% 16V	
C11	1-126-963-11	ELECT 4.7uF 20% 50V		C203	1-104-664-11	ELECT 47uF 20% 10V	
				C204	1-161-020-11	CERAMIC 0.039uF 10% 25V	
				C205	1-162-302-11	CERAMIC 0.0022uF 20% 16V	
				C211	1-124-902-00	ELECT 0.47uF 20% 50V	
				C213	1-124-903-11	ELECT 1uF 20% 50V	
				C250	1-126-963-11	ELECT 4.7uF 20% 50V	
				C251	1-136-160-00	FILM 0.039uF 5% 50V	
				C291	1-126-927-11	ELECT 2200uF 20% 10V	
				C292	1-124-903-11	ELECT 1uF 20% 50V	
				C293	1-136-153-00	CERAMIC 0.01uF 5% 50V	
				C294	1-102-074-00	CERAMIC 0.001uF 10% 50V	
				C304	1-124-443-00	ELECT 100uF 20% 10V	
				C305	1-124-443-00	ELECT 100uF 20% 10V	
				C306	1-124-443-00	ELECT 100uF 20% 10V	

MAIN

Ref. No.	Part No.	Description			Remark
C340	1-162-294-31	CERAMIC	0.001uF	10%	50V
C342	1-130-481-00	MYLAR	0.0068uF	5%	50V
C344	1-104-664-11	ELECT	47uF	20%	10V
C351	1-124-907-11	ELECT	10uF	20%	50V
C391	1-104-666-11	ELECT	220uF	20%	10V
C392	1-126-961-11	ELECT	2.2uF	20%	50V
C393	1-124-902-00	ELECT	0.47uF	20%	50V
C394	1-162-294-31	CERAMIC	0.001uF	10%	50V
C395	1-162-294-31	CERAMIC	0.001uF	10%	50V
C396	1-162-839-11	CERAMIC	0.01uF	10%	16V
C397	1-162-839-11	CERAMIC	0.01uF	10%	16V
C650	1-104-664-11	ELECT	47uF	20%	16V
C651	1-126-963-11	ELECT	4.7uF	20%	50V
C652	1-162-839-11	CERAMIC	0.01uF	10%	16V
C653	1-104-664-11	ELECT	47uF	20%	10V
C701	1-162-302-11	CERAMIC	0.0022uF	30%	16V
C702	1-136-165-00	FILM	0.1uF	5%	50V
C704	1-136-165-00	FILM	0.1uF	5%	50V
C705	1-131-375-00	TANTALUM	4.7uF	10%	10V
C706	1-130-489-00	MYLAR	0.033uF	5%	50V
C707	1-130-486-00	MYLAR	0.018uF	10%	50V
C708	1-162-199-31	CERAMIC	10PF	5%	50V
C709	1-126-962-11	ELECT	3.3uF	20%	50V
C710	1-130-493-00	MYLAR	0.068uF	5%	50V
C711	1-162-215-31	CERAMIC	47PF	5%	50V
C712	1-161-772-11	CERAMIC	0.1uF	10%	25V
C713	1-130-489-00	MYLAR	0.033uF	5%	50V
C714	1-162-306-11	CERAMIC	0.01uF	20%	16V
C715	1-130-489-00	MYLAR	0.033uF	5%	50V
C716	1-136-153-00	FILM	0.01uF	5%	50V
C717	1-104-664-11	ELECT	47uF	20%	10V
C718	1-124-907-11	ELECT	10uF	20%	50V
C719	1-162-282-31	CERAMIC	100PF	10%	50V
C721	1-130-491-00	MYLAR	0.047uF	5%	50V
C722	1-161-494-00	CERAMIC	0.022uF		25V
C723	1-136-165-00	FILM	0.1uF	5%	50V
C725	1-162-199-31	CERAMIC	10PF	5%	50V
C726	1-162-294-31	CERAMIC	0.001uF	10%	50V
C727	1-162-306-11	CERAMIC	0.01uF	20%	16V
C728	1-161-772-11	CERAMIC	0.1uF	10%	25V
C729	1-104-664-11	ELECT	47uF	20%	10V
C730	1-124-473-11	ELECT	1000uF	20%	10V
C731	1-162-305-11	CERAMIC	0.0068uF	30%	16V
C732	1-162-306-11	CERAMIC	0.01uF	20%	16V
C733	1-136-153-00	CERAMIC	0.01uF	5%	50V
C734	1-162-305-11	CERAMIC	0.0068uF	30%	16V
C736	1-124-443-00	ELECT	100uF	20%	10V
C737	1-162-294-31	CERAMIC	0.001uF	10%	50V
C738	1-136-153-00	CERAMIC	0.01uF	5%	50V
C739	1-162-294-31	CERAMIC	0.001uF	10%	50V
C740	1-136-153-00	CERAMIC	0.01uF	5%	50V
C742	1-136-173-00	FILM	0.47uF	5%	50V
C743	1-162-290-31	CERAMIC	470PF	10%	50V
C744	1-162-286-21	CERAMIC	220PF	10%	50V
C745	1-124-902-00	ELECT	0.47uF	20%	50V
C746	1-162-306-11	CERAMIC	0.01uF	20%	16V
C747	1-162-306-11	CERAMIC	0.01uF	20%	16V

Ref. No.	Part No.	Description			Remark
C750	1-136-153-00	CERAMIC	0.01uF	5%	50V
C751	1-136-153-00	CERAMIC	0.01uF	5%	50V
C752	1-162-199-31	CERAMIC	10PF	5%	50V
C753	1-162-199-31	CERAMIC	10PF	5%	50V
C754	1-162-207-31	CERAMIC	22PF	5%	50V
C755	1-104-664-11	ELECT	47uF	20%	10V
C756	1-162-306-11	CERAMIC	0.01uF	20%	16V
C759	1-136-153-00	CERAMIC	0.01uF	5%	50V
C763	1-162-294-31	CERAMIC	0.001uF	10%	50V
C764	1-126-963-11	ELECT	4.7uF	20%	50V
C768	1-162-294-31	CERAMIC	0.001uF	10%	50V
C769	1-162-294-31	CERAMIC	0.001uF	10%	50V
C770	1-162-306-11	CERAMIC	0.01uF	20%	16V
C771	1-162-294-31	CERAMIC	0.001uF	10%	50V
C772	1-162-294-31	CERAMIC	0.001uF	10%	50V
C773	1-162-294-31	CERAMIC	0.001uF	10%	50V
C774	1-126-963-11	ELECT	4.7uF	20%	50V
C777	1-162-282-31	CERAMIC	100PF	10%	50V
C780	1-124-443-00	ELECT	100uF	20%	10V
C781	1-124-443-00	ELECT	100uF	20%	10V
C782	1-161-772-11	CERAMIC	0.1uF	10%	25V
C785	1-162-294-31	CERAMIC	0.001uF	10%	50V
C786	1-162-306-11	CERAMIC	0.01uF	20%	16V
C787	1-162-306-11	CERAMIC	0.01uF	20%	16V
C792	1-162-282-31	CERAMIC	100PF	10%	50V
C793	1-162-282-31	CERAMIC	100PF	10%	50V
C796	1-161-772-11	CERAMIC	0.1uF	10%	25V
C797	1-162-294-31	CERAMIC	0.001uF	10%	50V
C800	1-104-664-11	ELECT	47uF	20%	10V
C801	1-162-294-31	CERAMIC	0.001uF	10%	50V
C803	1-104-664-11	ELECT	47uF	20%	10V
C804	1-136-153-00	CERAMIC	0.01uF	5%	50V
C805	1-136-153-00	CERAMIC	0.01uF	5%	50V
C807	1-136-153-00	CERAMIC	0.01uF	5%	50V
C910	1-126-937-11	ELECT	4700uF	20%	16V
C911	1-136-153-00	CERAMIC	0.01uF	5%	50V
C951	1-102-074-00	CERAMIC	0.001uF	10%	50V
C952	1-162-294-31	CERAMIC	0.001uF	10%	50V
C953	1-104-664-11	ELECT	47uF	20%	10V
C954	1-162-846-91	CERAMIC	0.039uF	10%	16V
C955	1-124-443-00	ELECT	100uF	20%	10V
C956	1-104-664-11	ELECT	47uF	20%	10V
C957	1-162-294-31	CERAMIC	0.001uF	10%	50V
< FILTER >					
CF1	1-760-235-11	FILTER, CERAMIC			
CF2	1-577-072-11	FILTER, CERAMIC			
< CONNECTOR >					
CN301	1-506-987-11	PIN, CONNECTOR (PC BOARD) 5P			
CN302	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P			
CN601	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P			
CN701	1-770-674-11	CONNECTOR, FFC/FPC 16P			
CN803	1-691-583-11	PIN, CONNECTOR (PC BOARD) 12P			
* CN804	1-691-584-11	PIN, CONNECTOR (PC BOARD) 13P			
* CN911	1-691-573-11	PIN, CONNECTOR (PC BOARD) 2P			
CN912	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P			

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< TRIMMER >				< RESISTOR >			
CT1	1-141-559-11	CAP, VAR (TUNE)		R1	1-247-807-31	CARBON 100 5% 1/4W	
CT2	1-141-559-11	CAP, VAR (TUNE)		R2	1-249-421-11	CARBON 2.2K 5% 1/4W	
CT3	1-141-559-11	CAP, VAR (TUNE)		R3	1-249-441-11	CARBON 100K 5% 1/4W	
CT4	1-141-559-11	CAP, VAR (TUNE)		R4	1-247-843-11	CARBON 3.3K 5% 1/4W	
< VARIABLE CAPACITOR >				R5	1-249-411-11	CARBON 330 5% 1/4W	
CV1	1-141-559-11	CAP, VAR (TUNE)		R6	1-247-807-31	CARBON 100 5% 1/4W	
CV2	1-141-559-11	CAP, VAR (TUNE)		R7	1-249-427-11	CARBON 6.8K 5% 1/4W	
CV3	1-141-559-11	CAP, VAR (TUNE)		R8	1-249-427-11	CARBON 6.8K 5% 1/4W	
CV4	1-141-559-11	CAP, VAR (TUNE)		R9	1-249-429-11	CARBON 10K 5% 1/4W	
< DIODE >				R10	1-249-429-11	CARBON 10K 5% 1/4W	
D391	8-719-991-33	DIODE 1SS133T-77		R11	1-247-843-11	CARBON 3.3K 5% 1/4W	
D620	8-719-991-33	DIODE 1SS133T-77		R12	1-247-843-11	CARBON 3.3K 5% 1/4W	
D651	8-719-991-33	DIODE 1SS133T-77		R13	1-249-421-11	CARBON 2.2K 5% 1/4W	
D652	8-719-991-33	DIODE 1SS133T-77		R14	1-249-429-11	CARBON 10K 5% 1/4W	
D653	8-719-991-33	DIODE 1SS133T-77		R101	1-249-431-11	CARBON 15K 5% 1/4W	
D655	8-719-991-33	DIODE 1SS133T-77		R102	1-249-404-00	CARBON 82 5% 1/4W	
D656	8-719-991-33	DIODE 1SS133T-77		R103	1-249-440-11	CARBON 82K 5% 1/4W	
D704	8-719-991-33	DIODE 1SS133T-77		R104	1-247-843-11	CARBON 3.3K 5% 1/4W	
D801	8-719-991-33	DIODE 1SS133T-77		R105	1-249-417-11	CARBON 1K 5% 1/4W	
D802	8-719-991-33	DIODE 1SS133T-77		R111	1-249-425-11	CARBON 4.7K 5% 1/4W	
D911	8-719-059-97	LED L-34HD (OPR/BATT)		R113	1-247-843-11	CARBON 3.3K 5% 1/4W	
D912	8-719-991-33	DIODE 1SS133T-77		R114	1-249-415-11	CARBON 680 5% 1/4W	
D950	8-719-991-33	DIODE 1SS133T-77		R149	1-249-429-11	CARBON 10K 5% 1/4W	
D951	8-719-923-52	DIODE MTZJ-T-77-7.5B		R191	1-247-807-31	CARBON 100 5% 1/4W	
< IC >				R192	1-249-417-11	CARBON 1K 5% 1/4W	
IC1	8-752-050-20	IC CXA1238S		R194	1-249-417-11	CARBON 1K 5% 1/4W	
IC301	8-759-264-71	IC TA2068N		R201	1-249-431-11	CARBON 15K 5% 1/4W	
IC305	8-759-452-80	IC LA4600		R202	1-249-404-00	CARBON 82 5% 1/4W	
IC701	8-752-074-34	IC CXA1782BQ		R203	1-249-440-11	CARBON 82K 5% 1/4W	
IC702	8-752-372-94	IC CXD2507AQ		R204	1-247-843-11	CARBON 3.3K 5% 1/4W	
IC703	8-759-453-99	IC BA6198S		R205	1-249-417-11	CARBON 1K 5% 1/4W	
IC704	8-759-426-44	IC SM5877AM		R211	1-249-425-11	CARBON 4.7K 5% 1/4W	
IC801	8-752-874-88	IC CXP5086H-684Q		R213	1-247-843-11	CARBON 3.3K 5% 1/4W	
< JACK >				R214	1-249-415-11	CARBON 680 5% 1/4W	
J301	1-566-891-11	JACK (○)		R249	1-249-429-11	CARBON 10K 5% 1/4W	
< COIL >				R291	1-247-807-31	CARBON 100 5% 1/4W	
L1	1-409-915-11	COIL, AIR-CORE		R292	1-249-417-11	CARBON 1K 5% 1/4W	
L2	1-411-387-11	COIL, AIR-CORE		R294	1-249-417-11	CARBON 1K 5% 1/4W	
L3	1-501-841-11	ANTENNA, FERRITE-ROD (MW)		R304	1-247-903-00	CARBON 1M 5% 1/4W	
L4	1-406-040-00	COIL (OSC)		R305	1-249-406-11	CARBON 120 5% 1/4W	
< TRANSISTOR >				R306	1-249-429-11	CARBON 10K 5% 1/4W	
Q1	8-729-921-65	TRANSISTOR DTC143ES		R307	1-249-429-11	CARBON 10K 5% 1/4W	
Q151	8-729-900-74	TRANSISTOR DTC143TS		R308	1-249-429-11	CARBON 10K 5% 1/4W	
Q251	8-729-900-74	TRANSISTOR DTC143TS		R314	1-249-399-11	CARBON 33 5% 1/4W	
Q340	8-729-281-53	TRANSISTOR 2SC1815-GR		R341	1-249-393-11	CARBON 10 5% 1/4W	
Q701	8-729-037-02	TRANSISTOR KTA1266Y-AT		R342	1-249-435-11	CARBON 33K 5% 1/4W	
Q703	8-729-036-80	TRANSISTOR KRC110M-AT		R351	1-249-429-11	CARBON 10K 5% 1/4W	
Q801	8-729-904-36	TRANSISTOR DTC114YS		R386	1-249-417-11	CARBON 1K 5% 1/4W	
Q951	8-729-021-82	TRANSISTOR 2SD2396K		R391	1-249-441-11	CARBON 100K 5% 1/4W	
Q952	8-729-040-76	TRANSISTOR KTA1273		R392	1-249-415-11	CARBON 680 5% 1/4W	
				R393	1-247-903-00	CARBON 1M 5% 1/4W	
				R619	1-249-429-11	CARBON 10K 5% 1/4W	
				R620	1-249-429-11	CARBON 10K 5% 1/4W	
				R623	1-249-429-11	CARBON 10K 5% 1/4W	
				R624	1-249-429-11	CARBON 10K 5% 1/4W	

MAIN
M/B SW
MEGA BASS

Ref. No.	Part No.	Description	Remark
R625	1-249-429-11	CARBON 10K 5%	1/4W
R700	1-249-429-11	CARBON 10K 5%	1/4W
R701	1-249-440-11	CARBON 82K 5%	1/4W
R702	1-247-896-11	CARBON 510K 5%	1/4W
R703	1-249-441-11	CARBON 100K 5%	1/4W
R704	1-247-883-00	CARBON 150K 5%	1/4W
R705	1-249-437-11	CARBON 47K 5%	1/4W
R706	1-247-876-11	CARBON 75K 5%	1/4W
R707	1-249-432-11	CARBON 18K 5%	1/4W
R708	1-247-883-00	CARBON 150K 5%	1/4W
R709	1-247-862-11	CARBON 20K 5%	1/4W
R710	1-249-393-11	CARBON 10 5%	1/4W
R712	1-247-843-11	CARBON 3.3K 5%	1/4W
R714	1-247-883-00	CARBON 150K 5%	1/4W
R715	1-249-430-11	CARBON 12K 5%	1/4W
R716	1-249-430-11	CARBON 12K 5%	1/4W
R717	1-249-429-11	CARBON 10K 5%	1/4W
R720	1-247-891-00	CARBON 330K 5%	1/4W
R722	1-249-439-11	CARBON 68K 5%	1/4W
R723	1-249-440-11	CARBON 82K 5%	1/4W
R725	1-249-437-11	CARBON 47K 5%	1/4W
R726	1-249-429-11	CARBON 10K 5%	1/4W
R727	1-249-429-11	CARBON 10K 5%	1/4W
R730	1-249-435-11	CARBON 33K 5%	1/4W
R731	1-247-863-91	CARBON 22K 5%	1/4W
R734	1-249-437-11	CARBON 47K 5%	1/4W
R740	1-247-843-11	CARBON 3.3K 5%	1/4W
R741	1-249-417-11	CARBON 1K 5%	1/4W
R742	1-249-429-11	CARBON 10K 5%	1/4W
R743	1-247-903-00	CARBON 1M 5%	1/4W
R744	1-249-441-11	CARBON 100K 5%	1/4W
R745	1-249-429-11	CARBON 10K 5%	1/4W
R746	1-249-437-11	CARBON 47K 5%	1/4W
R748	1-249-417-11	CARBON 1K 5%	1/4W
R749	1-249-417-11	CARBON 1K 5%	1/4W
R750	1-249-429-11	CARBON 10K 5%	1/4W
R751	1-249-417-11	CARBON 1K 5%	1/4W
R752	1-249-417-11	CARBON 1K 5%	1/4W
R753	1-249-417-11	CARBON 1K 5%	1/4W
R754	1-249-417-11	CARBON 1K 5%	1/4W
R755	1-249-417-11	CARBON 1K 5%	1/4W
R756	1-249-440-11	CARBON 82K 5%	1/4W
R757	1-249-439-11	CARBON 68K 5%	1/4W
R758	1-249-439-11	CARBON 68K 5%	1/4W
R759	1-249-439-11	CARBON 68K 5%	1/4W
R760	1-249-417-11	CARBON 1K 5%	1/4W
R761	1-249-417-11	CARBON 1K 5%	1/4W
R762	1-249-417-11	CARBON 1K 5%	1/4W
R764	1-249-417-11	CARBON 1K 5%	1/4W
R765	1-249-417-11	CARBON 1K 5%	1/4W
R766	1-249-417-11	CARBON 1K 5%	1/4W
R767	1-249-429-11	CARBON 10K 5%	1/4W
R768	1-249-429-11	CARBON 10K 5%	1/4W
R775	1-249-417-11	CARBON 1K 5%	1/4W
R776	1-249-417-11	CARBON 1K 5%	1/4W
R792	1-249-429-11	CARBON 10K 5%	1/4W
R793	1-249-417-11	CARBON 1K 5%	1/4W

Ref. No.	Part No.	Description	Remark
R795	1-249-429-11	CARBON 10K 5%	1/4W
R799	1-249-417-11	CARBON 1K 5%	1/4W
R801	1-249-437-11	CARBON 47K 5%	1/4W
R802	1-249-437-11	CARBON 47K 5%	1/4W
R803	1-249-437-11	CARBON 47K 5%	1/4W
R806	1-249-437-11	CARBON 47K 5%	1/4W
R807	1-249-417-11	CARBON 1K 5%	1/4W
R808	1-249-417-11	CARBON 1K 5%	1/4W
R809	1-249-429-11	CARBON 10K 5%	1/4W
△ R901	1-219-123-11	FUSIBLE 0.47 5%	1/4W F
△ R902	1-219-123-11	FUSIBLE 0.47 5%	1/4W F
△ R903	1-219-123-11	FUSIBLE 0.47 5%	1/4W F
R911	1-247-828-11	CARBON 750 5%	1/4W
R912	1-247-816-11	CARBON 240 5%	1/4W
R951	1-247-815-91	CARBON 220 5%	1/4W
< VARIABLE RESISTOR >			
RV1	1-228-995-00	RES, ADJ, CARBON 22K (VCO)	
RV351	1-225-438-11	RES, VAR, CARBON 20K/20K (TONE)	
RV352	1-225-439-11	RES, VAR, CARBON 20K/20K (VOL)	
RV701	1-228-995-00	RES, ADJ, CARBON 22K (FOCUS BIAS)	
RV702	1-228-995-00	RES, ADJ, CARBON 22K (FOCUS GAIN)	
RV703	1-228-991-00	RES, ADJ, CERMET 2.2K (E-F BALANCE)	
RV704	1-228-995-00	RES, ADJ, CARBON 22K (TRACKING GAIN)	
< SWITCH >			
S351	1-571-345-11	SWITCH, LEVER SLIDE (FUNCTION)	
< TRANSFORMER >			
T1	1-409-944-11	COIL (DET)	
T2	1-416-155-11	COIL (455KHZ IFT)	
T301	1-433-268-00	BIAS OSC TRANS	
< VIBRATOR >			
X701	1-760-793-11	VIBRATOR, CERAMIC (16.9344MHz)	

*	1-665-564-13	M/B SW BOARD	

< SWITCH >			
S355	1-762-950-11	SWITCH, PUSH (2 KEY) (MEGA BASS)	

*	1-665-563-13	MEGA BASS BOARD	

< CAPACITOR >			
C155	1-136-165-00	FILM 0.1uF 5%	50V
C156	1-136-165-00	FILM 0.1uF 5%	50V
C255	1-136-165-00	FILM 0.1uF 5%	50V
C256	1-136-165-00	FILM 0.1uF 5%	50V
C352	1-124-907-11	ELECT 10uF 20%	50V
< CONNECTOR >			
* CN308	1-691-573-11	PIN, CONNECTOR (PC BOARD) 2P	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MEGA BASS

POWER

REC SW

SW

Ref. No.	Part No.	Description	Remark
< DIODE >			
D352	8-719-991-33	DIODE 1SS133T-77	
< TRANSISTOR >			
Q155	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q255	8-729-119-78	TRANSISTOR 2SC403SP-51	
< RESISTOR >			
R155	1-247-841-91	CARBON 2.7K 5% 1/4W	
R157	1-249-417-11	CARBON 1K 5% 1/4W	
R255	1-247-841-91	CARBON 2.7K 5% 1/4W	
R257	1-249-417-11	CARBON 1K 5% 1/4W	
R352	1-249-437-11	CARBON 47K 5% 1/4W	
R353	1-249-417-11	CARBON 1K 5% 1/4W	

*	1-665-559-13	POWER BOARD	*****
	1-533-217-31	HOLDER, FUSE	
< CAPACITOR >			
C901	1-161-055-00	CERAMIC 0.022uF 10% 50V	
C902	1-161-055-00	CERAMIC 0.022uF 10% 50V	
C903	1-161-055-00	CERAMIC 0.022uF 10% 50V	
C904	1-161-055-00	CERAMIC 0.022uF 10% 50V	
C905	1-136-165-00	FILM 0.1uF 5% 50V	
C906	1-136-165-00	FILM 0.1uF 5% 50V	
< DIODE >			
D901	8-719-052-88	DIODE 1N4002	
D902	8-719-052-88	DIODE 1N4002	
D903	8-719-052-88	DIODE 1N4002	
D904	8-719-052-88	DIODE 1N4002	
< FUSE >			
△ F902	1-576-107-11	FUSE, GLASS CYLINDERICAL (3.15A/250V)	

*	1-665-562-13	REC SW BOARD	*****
< SWITCH >			
S301	1-762-565-11	SWITCH, SLIDE (REC/PB)	

*	1-665-554-13	SW BOARD	*****
< CONNECTOR >			
CN851	1-691-583-11	PIN, CONNECTOR (PC BOARD) 12P	
< LIQUID CRYSTAL DISPLAY >			
LCD801	1-801-639-11	LCD	

Ref. No.	Part No.	Description	Remark
< SWITCH >			
S801	1-762-798-11	SWITCH, KEYBOARD (▶▶)	
S802	1-762-798-11	SWITCH, KEYBOARD (■)	
S803	1-762-798-11	SWITCH, KEYBOARD (◀◀)	
S804	1-762-798-11	SWITCH, KEYBOARD (▶▶)	
S851	1-762-798-11	SWITCH, KEYBOARD (PLAY MODE)	
S852	1-762-798-11	SWITCH, KEYBOARD (DISPLAY ENTER)	

MISCELLANEOUS			

56	1-452-899-11	MAGNET	
73	1-777-955-11	WIRE, PARALLEL (16 CORE)	
107	1-533-217-31	HOLDER FUSE	
△ 254	8-848-483-05	OPTICAL PICK-UP KSS-213C	
255	X-2625-770-1	CHASSIS ASSY (MB) (RP), MOTOR (INCLUDING M702) (SPINDLE)	
ANT1	1-501-883-11	ANTENNA, TELESCOPIC	
△ F902	1-576-107-11	FUSE, GLASS CYLINDERICAL (3.15A/250V)	
HE901	1-543-876-11	HEAD (ERASE)	
HRP901	1-500-364-11	HEAD, MAGNETIC (RECORD/PLAYBACK)	
LCD801	1-801-639-11	LCD	
M701	X-2625-769-1	GEAR ASSY (MB)(RP), MOTOR (SLED)	
M901	A-3304-619-A	MOTOR ASSY	
S871	1-692-960-11	SWITCH, PUSH (1 KEY) (OPEN/CLOSE)	
S901	1-762-679-11	SWITCH, LEAF (MOTOR ON/OFF)	
SP901	1-505-531-11	SPEAKER (10CM) (L-CH)	
SP902	1-505-531-11	SPEAKER (10CM) (R-CH)	
△ T901	1-431-230-11	TRANSFORMER, POWER (US)	
△ T901	1-431-230-21	TRANSFORMER, POWER (CND)	

ACCESSORIES & PACKING MATERIALS			

△	1-590-147-11	CORD, POWER	
	3-859-117-11	MANUAL, INSTRUCTION (ENGLISH)	
	3-859-117-21	MANUAL, INSTRUCTION (FRENCH) (CND)	

HARDWARE LIST			

#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#2	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	
#3	7-682-548-04	SCREW +B 3X8	
#5	7-621-255-15	SCREW +P 2X3	
#6	7-685-649-14	SCREW +BVTP 3X14 TYPE2 N-S... (WHITE) (US)	
#6	7-685-649-79	SCREW +BVTP 3X14 TYPE2 N-S... (BLACK)	
#7	7-621-770-87	SCREW +B 2.6X5	
#8	7-621-773-95	SCREW +B 2.6X6	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

